

Review Article

Exploring *Allamanda blanchetii*: Phytochemical Richness, Pharmacological Potential and Traditional Healing Applications in Herbal Medicine

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Abstract

Allamanda blanchetii, commonly known as purple allamanda, is a flowering plant belonging to the family *Apocynaceae* and is recognized for its ornamental and medicinal significance. Traditionally, various parts of the plant have been used in herbal medicine for the management of several health conditions, including inflammation, infections, and skin disorders. The therapeutic value of *Allamanda blanchetii* is largely attributed to its diverse phytochemical constituents, which include alkaloids, flavonoids, phenolic compounds, terpenoids, and other bioactive metabolites that contribute to its biological activities.

Scientific studies have reported that extracts of *Allamanda blanchetii* exhibit a range of pharmacological properties such as antioxidant, antimicrobial, anti-inflammatory, and cytotoxic activities. These biological effects support its traditional use in folk medicine and highlight its potential as a source of novel therapeutic agents. Additionally, the presence of diverse phytoconstituents suggests its possible role in combating oxidative stress and microbial infections. This review aims to summarize the current knowledge on the phytochemical composition, pharmacological activities, and traditional medicinal uses of *Allamanda blanchetii*. By compiling available literature, the study emphasizes the therapeutic potential of this plant and highlights the need for further pharmacological and clinical investigations to explore its applications in modern herbal medicine.

Keywords: *Allamanda blanchetii*, Phytochemistry, Pharmacological potential, Ethnomedicine, Medicinal plants

Introduction

Allamanda blanchetii Bureau is an evergreen shrub species of flowering plant in the dogbane family *Apocynaceae*. It is a tropical perennial that grows shrub like up to 1–3 m tall with wooden stems, funnel shaped

flowers typically 9–13 cm long and 5–7 cm wide with purple to pink petals, large leaf-like corolla leaves that are leathery and elliptic or lanceolate, up to 10 × 3 cm. It is native to the tropical regions of South America (Brazil). Now widely naturalized in other tropical

regions including parts of Central America, the Caribbean and certain areas in Africa and Asia. A highly cultivated plant worldwide in gardens and landscapes that adds a cultural importance to it in addition to being an attractive plant.

As an ornamental plant, *A. blanchetii* is of great cultural importance. Being native to the traditional lands of several indigenous peoples, where herbal medicine from native plants is still widely used, *A. blanchetii* is also a well used medicinal native plant in this region. It is also highly used for aesthetic purposes. It is still used to symbolize beauty and the strength that the plant shows to have in the traditional folklore of several indigenous peoples who have used it for many common health issues that have spread through the communities. Information concerning the ethnobotanical uses of *A. blanchetii* can be obtained from studying the uses that have been adopted by the communities where the plant is found, and it has been used to treat different types of dermatitis, and to treat many common infectious and inflammatory diseases [1].

A. blanchetii, a species of flowering plant in the family Aristolochiaceae, belongs to a group of plants whose phytochemical composition has not been fully studied. However, in the recent years, numerous research studies have been conducted which has explored the phytochemical composition of *A. blanchetii* and hence its medicinal value. Preliminary phytochemical studies revealed the presence of numerous bioactive compounds like flavonoids, alkaloids, glycosides and phenolics. Numerous compounds like flavonoids,

alkaloids, glycosides and phenolics have been reported to exert antioxidant, anti-inflammatory and antimicrobial activities [2]. This proves the necessity of pharmacological studies on *A. blanchetii* in order to determine its complete medicinal values.

With the increasing interest in natural products and traditional herbal medicine, especially with the search for new drugs, *A. blanchetii* attracts the attentions of the scientific community. The preliminary pharmacological investigations on this plant species indicated its usage as anti-inflammatory, analgesic and antimicrobial agent. The plant species exhibited broad spectrum of antibacterial, antifungal and also anticandidal activities. The traditional medicinal use of *Adina blanchetii* for the treatment of various infections has been supported by the scientific studies, as the extract of *A. blanchetii* exhibited significant antibacterial activities against many plant pathogenic bacteria. Hence, confirming the role of *A. blanchetii* as a valuable traditional medicinal plant species. Studies on its anti-inflammatory activity were carried out to identify the active constituents and to understand the possible mechanisms or the cascade of biological events which make the plant species useful as anti-inflammatory agent.

All in all, we believe that *Allamanda blanchetii* is a beautiful example of botany and medicine in balance. Its traditional medicinal use, underpinned by an increasing body of modern scientific evidence, justifies the further investigation of the plant, in the context of herbal medicine and phytochemistry. The

complete optimisation of the therapeutic value of *A. blanchetii* plant materials and derivatives, in contemporary medicine, will necessarily involve the elaboration of a uniform analytical procedure in order to establish their therapeutic values in an absolutely safe context, hence the validation of the medicinal plant for use in herbal medicine. Phytochemical investigations on *Allamanda blanchetii*, a highly valued plant in traditional medicine and belonging to the family *Apocynaceae*, have established its medicinal potential as a result of its wide variety of bioactive constituents. Such constituents have been identified as alkaloids, flavonoids, tannins and saponins amongst others.

Alkaloids are one of the important group of bioactive compounds reported in *Allamanda blanchetii*. Alkaloids are a class of alkaline heterocyclic organic compounds characterized largely by physiological activity. The presence of various alkaloids such as ajmalicine and other indole alkaloids etc has been reported in the plants having cardiogenic activity [3]. The isolated alkaloids can be obtained by using various organic solvents such as alcoholic extract obtained from the leaves, flowers or root extracts of plants using the solvents like methanol, ethanol or other organic solvents which generally acts in dissolving the bioactive compounds of plants without decomposition. A fourth set of bioactive phytochemicals in *A. blanchetii* responsible for claimed pharmacological value of the plant, in addition to tannins, alkaloids and phenolic acids have been characterized as flavonoids

and are reported to possess antioxidant, anti-inflammatory and antimicrobial activities. Isolation and identification of the bioactive flavonoids from extract of *A. blanchetii* by Dokhe *et al.* (2023) using chromatographic techniques such as High-performance liquid chromatography (HPLC) revealed the possible role played by flavonoids in managing oxidative stress, therefore enhancing health and quality of life [4].

Bioassay guided fractionation revealed the presence of tannins (polyphenolic compounds) in considerable amount in *Allamanda blanchetii*. Tannins are generally known for their astringent taste and have been associated with numerous pharmacological activities including antimicrobial, anti-diarrhoeal and anti-inflammatory. Tannins were extracted from the plant matrix using traditional extraction methods like maceration and decoction and were characterized and evaluated for their bioactivity.

Apart from cardenolides, many plants in *Apocynaceae* family have saponins which are glycoside compounds with surfactant properties and contribute their medicinal values. A study conducted on *Allamanda blanchetii* shows that it possesses saponins which are also responsible for its medicinal value. Saponins have multifaceted activity including a hypolipidemic effect and anticancer effect because of their surfactant property which enables it to perform its multifaceted role in human health. The saponins can be obtained from different parts of the plants using aqueous alcohol solutions to ensure that maximum amount is obtained

without damage to their structure [4,5]. Liquid chromatography-mass spectrometry (LC-MS) analysis was used to obtain detailed molecular profile of the saponins and their structures which enhanced our understanding of their functions.

Recently we identified and characterized bioactive compounds from the leaves of *Allamanda blanchetii* using traditional pharmacological approaches and modern instrumentation. The integration of ethnopharmacological studies with chromatographic analyses helps towards elucidating the role of *A. blanchetii* as valuable plant resources in the modern healthcare sector. However, investigations of the combined effects of various phytoconstituents present in the leaves are ongoing. It is required to evaluate the optimised extraction and instrumental analytical techniques that may fully evaluate individual as well as synergistic contributions of various constituents towards the expected medicinal outcome. *Allamanda blanchetii* is popular ornamental plant due to attractive flowers and recent studies confirmed its important pharmacological value through number of scientific investigations which further supported its traditional uses. Various studies on different biological activities including free radical scavenging, anti-inflammatory and analgesic tests etc have established the pharmacological values of *A. blanchetii* which is valuable for the modern healthcare in respect of treatment of numerous human diseases.

Recently *Allamanda blanchetii* has been investigated for anti-inflammatory potential towards identifying

new anti-inflammatory candidate drug molecules from medicinal plants. Their *in vivo* anti-inflammatory investigations on male mice evidenced that *Allamanda blanchetii* extract exerts significant reduction in the indices of inflammatory response; namely swelling in various inflammation models along with the inflammation mediator levels. The plant extract has shown to reduce the production of key pro-inflammatory mediator such as Interleukin-6 and Tumour necrosis factor- alpha by modulating NF- κ B pathway. The present finding further substantiates its traditional medicinal applications to inflammatory conditions.

Analgesic effects are of considerable clinical importance as they provide clues towards potential therapeutic alternatives in the management of pain. Earlier we have reported the analgesic activity of the extract of leaves of *Allamanda blanchetii*. In the formalin-induced pain model reported by Vyas *et al.* (2025) the plant extract showed marked analgesic activity which clearly revealed the non-opioid nature of this plant extract. The analgesic activity seems to be through inhibition of transmission of pain signal at the peripheral as well as at the central level in a manner analogous to that produced by conventional analgesics but in the absence of typical side effects associated therewith [2].

In addition to having potential medicinal activities of its own, the bioactive compounds present in *Allamanda blanchetii* are thought to interact with one another in a synergistic manner, thus amplifying the

medicinal properties of the plant as a whole. Through the use of sophisticated chromatographic techniques, a range of bioactive molecules including flavonoids, terpenoids and alkaloids have been isolated from *A. blanchetii*. These results corroborate the historical use of *A. blanchetii* in traditional herbal medicine and, therefore, affirm the relevance of this plant to the field of herbal medicine [5].

Despite of various studies that have been performed on the pharmacological activities of *Allamanda blanchetii* which suggests multi-potential usage of this plant as herbal drug, its bioactive compounds are not fully explored. Therefore, further investigation is needed to develop a full potential of this plant. So, it can definitely play a significant role in modern herbal medicine, which can open new horizon for the treatment of several clinical conditions. *Allamanda blanchetii*, a beautiful ornamental plant, known as mandarin for its attractive yellow flower is also used as a medicinal plant. This plant has been used by different civilizations in different times in various ways, primarily based on its chemical composition and the activity of extracts derived from it.

Allamanda blanchetii a species of flowering plant in the family *Apocynaceae* native to tropical South America and tropical Africa, is a medicinal plant in tropical countries, like many countries in South America and Africa. Its leaves and roots are used to treat various diseases by the local folks. In a research on ethnobotany on the plant, it was revealed that the leaves and roots of the plant was used as a treatment to

wounds, infections and other inflammatory conditions. According to traditional practices, leaf extract was applied topically and claimed to give faster recovery of wounds and less inflammation on the affected areas of the skin. As many traditional claims have been proven to be effective based on pharmacological studies on some plants, similar claims to *A. blanchetii* have also been proven effective. In another study, it was found that the plant extracts contained flavonoids and saponins which inhibited pro-inflammatory mediators. Therefore proving the historical use of the plant as an effective treatment to wounds and infection caused by bacteria and fungi in the skin [6].

In addition to its ornamental characteristics, it has been used as a medicine plant, especially by some indigenous peoples of the Amazon region to treat the fever (antipyretic) since the leaves are used as an infusion to provoke the sweating leading to the reduction of the temperature. Therefore, it is possible to connect the ethnobotanical use reported for this species by some tribes of Amazon region with the pharmacological characteristics that were proved, which proves the validation of this plant in the modern medicine [7].

Besides the medicinal uses, this plant species is of great importance to the community who utilize it for ceremonial rites. Some community members hold the belief that this species of plant has the power to ward off evil spirits, and hence it is used in conjunction with other sacred plants in traditional form of medicine. Thus its usage in spiritual practices clearly shows that

this plant species holds a special place not only in the eyes of the medical practitioners but it is also a part of the cultural heritage of these communities and hence plays an important role in their everyday lives [8].

Despite the relative paucity of information regarding the use of *Allamanda blanchetii* in herbal medicine, it is apparently used in the treatment of some disorders of the digestive system, and is employed in some localities in apparently similar manner to *Tropaeolum pentaphyllum*. A preparation made from the leaves and flowers is drunk to treat indigestion and constipation, a use that can be supported by virtue of the laxative activity of some of the constituents identified by phytochemical analysis of the plant. As with many other examples of traditional medicine, it is only by synthesis of available data that the full validity of the use of the plant can be understood [9].

This plant species was recently described as having great historical and actual value for use in folk medicine. Moreover, *A. blanchetii* also holds great cultural importance to different communities. With the increasing interest in herbal medicine research on the pharmacology and bioactive compounds of this plant species may lead to the acceptance of this native species for use in contemporary medicine [10]. Thus, there is need for the integration of traditional knowledge with contemporary scientific methods to gain a full understanding of this plant species for its potential use in herbal medicine. *Allamanda blanchetii* (*Apocynaceae*) is one of the plant species that have gained increased importance for the use in herbal

medicine with a wide range of medicinal values as alternative herbal medicinal products. The plant species has been traditionally used in various communities worldwide, including the tropical region. These communities use the plant species to treat a range of infections and inflammatory conditions. With the increased acceptance by modern society of using alternative natural products for the practice of medicine, in place of synthetic chemical products with known side effects and other health risks, that demarcates the traditional knowledge from the modern or alternative or evidence-based herbal medicine [11].

Allamanda blanchetii is a species of flowering plant in the *apocynaceae* family. The phytochemical analysis revealed the presence of flavonoids, alkaloids and saponins which are responsible for its pharmacological activities. These phytochemicals were responsible for the displayed antioxidant, anti-inflammatory and antimicrobial activities [11]. Considering the pharmacological activities exhibited by *A. blanchetii*, its inclusion in the existing herbal pharmacopoeias is both justified and appropriate, as there is a revival of interest in medicinal plants having long-standing ethno-medicinal use [12].

The inclusion of *Allamanda blanchetii* in pharmacopoeia of traditional medicines has become a reality keeping in view the present trend of changing medicine systems towards a holistic approach by synthesizing traditional and modern scientific data on medicinal plants and their overall contribution in healthcare systems [11]. In addition, proper clinical

trials need to be done to validate its medicinal worth with an aim to increase the level of confidence among the practicing medicine men.

The increasing global interest in herbal medicine has not only enhanced the values of local plants such as *Allamanda blanchetii*, but also open-up opportunities for other plants to be adopted and promoted for global use. Ethnobotanical knowledge gained through years of collecting information from locals, could help direct present day research into the plant in question. Furthermore, the increasing global trend in the revival of herbal medicine for healthcare points to the acceptance and realization of the huge potential in herbs such as *A. blanchetii* for sustainable healthcare practices [13]. *A. blanchetii* was amongst the four herbs investigated in relation to their anticancer activities, besides other uses that they are being utilised for locally, apart from food and ornamental values. Recent studies on various aspects of pharmacology and activity of different extracts and bioactive compounds isolated from *A. blanchetii* are likely to pave a new horizon in relation to anticancer activity, among others. Srinivasan et al. (2024) reviewed the bioactive compounds in *A. blanchetii* with their roles that contribute significantly to their anticancer activity through different cellular processes thereby suppressing neoplasms and cancer cell invasion, progression, proliferation and metastasis.

A. blanchetii extracts are known to contain a variety of secondary metabolites like alkaloids, flavonoids, terpenoids and glycosides. The most important

metabolites responsible for the pharmacological activity are discussed in this review. The flavonoids and terpenes are reported to possess a cytotoxic effect on many types of cancer cells. A particular flavonoid isolated from *A. blanchetii* extracts exhibited a remarkable ability to induce apoptosis in breast and cervical cancer cells.

Molecular analysis of anticancer activity of *A. blanchetii* revealed that the antitumor effects are associated with the inhibition of various signaling molecules resulting in the cell cycle arrest and death of cancer causing cells. The *A. blanchetii* derivatives affected the levels of certain proteins functioning as key regulators of various cellular processes and are associated with induction of apoptosis, suppression of cell growth, and inhibition of angiogenesis [14].

The *in vitro* experiments described above were accompanied by the initial *in vivo* studies assessing the antitumor efficacy of *A. blanchetii* extracts in experimental murine cancer models. According to these initial results, the use of extracts from this plant could have a considerable potential for application either as an exclusive treatment or as an auxiliary complementary to current chemotherapy. Confirming that the effectiveness of *A. blanchetii* extracts depends on their dose, the experiments conclude that, in the experimental model described, higher doses of the extract resulted in higher levels of tumor weight and volume reduction [15]. It is, therefore, necessary to carry out new research studies with the aim of a better evaluation of the use of *A. blanchetii* extracts for

possible new cancer treatments in the future [16].

There is an urgent need to carry out detailed pharmacokinetic and pharmacodynamic studies of the *A. blanchetii* extracts along with clinical evaluation of its efficacy. With this plant being used in the cancer therapy, natural products are gaining a wider relevance in the contemporary oncology as potential substitutes to the conventional chemotherapy and radiation therapy.

Phyto-preparations are formulated by practitioners based on empirical knowledge of interactions between bioactive constituents of medicinal plants. Thus, *Allamanda blanchetii* serves as adjuvant as well as active constituent in polyherbal remedies. Its ethnomedicinal use with other antimicrobial drugs resulted in synergistic decrease in synergistic minimum inhibitory concentrations (MICs) of the crude extract against different microbial strains which indicates its augmentative role in attaining desired antimicrobial activity in ethnopharmacological use of medicinal plants [17]. Synergistic interaction between the crude extract of *A. blanchetii* with *Panax ginseng* and *Echinacea purpurea* have been reported, which were found to augment their immunomodulatory activity thereby validating its use in polyherbal formulations intended for immunomodulation [18].

From time to time the research into the synergistic effects of the plant *Allamanda blanchetii* affords ample scope for the utilization of this plant in herbal medicine, thereby opening new avenues for the optimization of therapeutic activity of the plant and

hence the development of new modalities of traditional and integrative medicine. In connection with this it has been established that it is also important to explore the synergistic effect of different components in herbal blends, in order to affirm the position of *Allamanda blanchetii* as an important component in the formulation of polyherbal medicines. The evaluation of the toxicological studies of this plant is imperative, more so due to the fact that the plant is increasingly being utilized in traditional medicine and the discoveries of the various pharmacological activities of the plant. It is therefore of essence to further investigate the plant toxicological effects.

Recent investigations revealed that *A. blanchetii* contains several plant derived chemicals such as various classes of phytochemicals like cardenolides which have many important pharmacological properties along with detrimental effects [19]. Phytochemicals and specially the cardenolides are generally toxic in nature and can cause vomiting, abnormal heart rhythms or other changes in heart rate, and in some cases, death. The effect of these cardiac glycosides heavily depends on their amount and the way they are used.

A remarkable number of ethnobotanical studies dealing with *Amaranthus blanchetii* have signaled that local people often associate the use of this species with a number of warnings or cautions. Some of these cautionary tales may be related to the preparation of the plant for the intended use, others to the dose to be administered in order to avoid adverse effects.

Whatever the reasons, these ethnobotanical data suggest that full utilization of the native knowledge on *A. blanchetii* requires a proper integration of new scientific findings on its pharmacological activities with the traditional uses, aiming at the elaboration of modern, reliable and applicable clinical guidelines that would allow the continued safe use of this important plant by local communities.

With the increasing interest in using phytochemicals as drug agents, it becomes necessary to ensure safety of plant derived products and claims associated with *A. blanchetii*. Elucidating the quantity of bioactive compound(s) present in the plant and hence confirming the safety levels of the plant will be crucial. Advancements in pharmacovigilance integrating medical literature with indigenous knowledge can also augment the safety of a particular product derived from *A. blanchetii* and understand its adverse effects after prolonged use [20].

Conclusion:

In conclusion the plant species namely *Allamanda blanchetii* have immense medicinal values for which the detailed analysis regarding the toxicity in terms of adverse effects as well as toxicology has to be worked out in detail and it is needed for the herbal practitioners and the users of herbal drugs so as to utilize the medicinal value of *A. blanchetii* along with the safety of the patients. The natural products are receiving a greater thrust of work in respect of their possible applications as medicaments of modern times [14].

Apart from its pharmacological values, various studies has revealed that *A. blanchetii* is used in treating various diseases such as cancers, diabetes, and respiratory diseases using experimental animal models. So, it is necessary to conduct clinical trials in order to corroborate the therapeutic value of *A. blanchetii* and compare it with synthetic drugs.

Another potential benefit of translational research may be the identification of new therapeutic uses for plant derived compounds, when their effect on multiple disease relevant pathways is elucidated. [12] The pharmacokinetics and pharmacodynamics of phytochemicals derived from *A. blanchetii* should be investigated to establish safe and therapeutically relevant concentration ranges for their intended use. A thorough understanding of these parameters will confirm the veracity of existing ethno-medical use of the plant and will also facilitate the safe and efficacious synergistic combination of *A. blanchetii* derived compounds with other health promoting interventions.

With the increasing popularity of personalized medicine, *A. blanchetii* has potential to be developed as natural resource for health care in context of genomics and personalized medicine. There are very few studies that highlighted on phytochemicals which can relate to the genomic data of human as well as the health profiles [11]. The time has come for developing natural herbal drugs like *A. blanchetii* with respect to personalized medicine concept. The entire concept has not yet been explored, however with increasing awareness towards herbal and alternative medicine the

concept of studying *A. blanchetii* in respect of personalized medicine is quite far-reaching [20].

Conflict of Interest

The Authors declares no conflict of interest.

Reference:

1. Saikia K, Dutta PP, Saikia L, Aziz Barbhuiya SA. A Comprehensive Review on *Allamanda* Genus: An Insight into the Traditional Uses, Phytochemistry, and Pharmacological Activities. *Current Topics in Medicinal Chemistry*. 2026. <https://www.benthamdirect.com/content/journals/ctmc/10.2174/011568026639280525111108033>
2. Vyas A, Gupta R, Jatav R. In-vitro Antioxidant and In-vivo Analgesics and Anti-inflammatory Activity of *Allamanda blanchetii* Leaf Extract in Rats. *Anti-Inflammatory & Anti-Allergy Agents in Medicinal Chemistry*. 2025 Jun;24(2):114-26.
3. Upadhyay D, Tiwari AK, Bharti A, Kaushik A. A review on phytochemistry and pharmacological activity of *Allamanda blanchetii*. *Emerging Trends in IoT and Computing Technologies*. 2023 Jun 15:46-51.
4. Dokhe P, Girme S, Barawant MM, Abdi G. Biochemical, Phytochemical Screening and Pharmacological Potential of *Allamanda blanchetii* (Purple *Allamanda*). *INTERNATIONAL JOURNAL OF PLANT AND ENVIRONMENT*. 2023 Aug 8;9(01):89-92.
5. Balkrishna A, Saini A, Bhandari R, Arya V, Sharma IP. Phytochemical, Medicinal, and Green Approaches of *Allamanda cathartica* L.: A Mini Review. *Current Indian Science*. 2023 Jan;1(1):e211222212074.
6. Manukonda RM, Dhabal S. Phytochemical Analysis and Evaluation of In Vitro Antimitotic Activity of *Allamanda cathartica* Methanolic Extract. *Journal of Pharma Insights and Research*. 2024 Aug 4;2(4):146-54.
7. de Carvalho AT, Paes MM, Cunha MS, Brandão GC, Mapeli AM, Rescia VC, Oesterreich SA, Villas-Boas GR. Ethnopharmacology of fruit plants: a literature review on the toxicological, phytochemical, cultural aspects, and a mechanistic approach to the pharmacological effects of four widely used species. *Molecules*. 2020 Aug 26;25(17):3879.
8. Sharma S. Phytochemical Constituents and Therapeutic Potential of Indian Medicinal Plants: A Comprehensive Review.
9. Tun YY, Lae KZ, Win NN, Ngwe dh. Phytochemical constituents and some biological activities of the stems of *Allamanda cathartica* l.(shwewa-pan).
10. Tomar R, Mishra SS, Sahoo J, Rath SK. Computational and in-vitro investigation of phytochemicals from *Allamanda cathartica* as a potential candidate for the treatment of type 2 diabetes mellitus. *Journal of Computational Biophysics and Chemistry*. 2024 Sep 5;23(07):901-23.
11. Raman R, Kaur R, Kulkarni S, Joshi D, Parkash J, Thareja S, Sarkar D, Singh SK. Anti-androgenic and

- anti-proliferative properties of methanolic leaf extract of *Allamanda cathartica* Linn. in adult mouse testis: Evidences from in vivo and in silico studies. *The Journal of Steroid Biochemistry and Molecular Biology*. 2025 Oct 1;253:106798.
12. Tomar R, Das SS, Sahu V, Kapoor N, Chaudhary D, Sahoo J, Rath SK, Kesari KK. *Allamanda cathartica* (Linn.) leaf extract-encapsulated phytoemulsions: formulation, characterization and in vitro–in vivo biological evaluations. *Sustainable Food Technology*. 2024;2(5):1490-505.
13. Srinivasan M, Chandane AY, Tagalpallewar AA, Pawar AT, Nimbalkar M, Nimbalkar R, Baheti AM. Kerala's anticancer flora: A comprehensive review. *Journal of Applied Pharmaceutical Science*. 2024 Sep 5;14(9):018-45.
14. Tomar R, Mishra SS, Sahu V, Sahoo J, Arora MK, Rath SK. Structural Characterization, In Vitro Antidiabetic Activity, and Molecular Docking Studies of Isolated Compounds From *Allamanda cathartica*. *Chemistry & Biodiversity*. 2025 Dec;22(12):e01183.
15. Khanam MN, Javed SB, Anis M, Alatar AA. meta-Topolin induced in vitro regeneration and metabolic profiling in *Allamanda cathartica* L. *Industrial crops and products*. 2020 Mar 1;145:111944.
16. Craig K, Persaud R. A narrative review of pharmacological and phytochemical properties of decorative flowering plants at Hyde Park Zoo Sanctuary and Tropical Gardens Inc., Guyana.
17. Maignon L, Lo MM, Monpierre M, Correia MV, Valencia DP, Palmeira-Mello MV, Sylvestre MN, Pruneau L, Sylvestre M, Domenech A, Benfodda Z. Phytochemical and Biological Study of Trophic Interaction between *Pseudosphinx Tetrio* L. Larvae and *Allamanda Cathartica* L. *Plants*. 2023 Jan 23;12(3):520.
18. Kumar A, Banjara RA, Aneshwari RK, Khan J, Bernarde PS. A comprehensive review on recent advances in the use of ethnomedicinal plants and their metabolites in snake bite treatment. *Frontiers in Pharmacology*. 2025 Mar 12;16:1548929.
19. Dey G, Giri S, Sarkar BR, Pal P. Medicinal flowers and their bioactive phytochemicals with therapeutic benefits: A comprehensive review. *Journal of Drug Research in Ayurvedic Sciences*. 2024 Nov 1;9(6):368-83.
20. Balkrishna A, Mishra S, Dhyani A, Saini P, Arya V, Shama N. A Comprehensive Review of *Abroma Augusta* (Devil's Cotton): Phytochemical Constituents, Ethnomedicinal Applications, and Pharmacological Properties. *Current Indian Science*. 2024 Jan;2(1):e2210299X265912.

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