

Antidiabetic nutraceutical from mangrove plant *B. sexangula*

Problem addressed

- Global rise in diabetes cases
- Side effects of currently available treatments
- Challenges in effectively using plant based products for diabetes management
- Concerns about natural remedies

Inventor(s):

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Technology:

This technology extracts bioactives from *Bruguiera sexangula*, focusing on its fallen stem or bark. It aims to develop a composition and its dosage for treatment for **hyperglycemia-associated complications** using ethanolic extracts. Specifically, it isolates **bruguierin C**, a dammarane triterpene compound from the plant waste known for antidiabetic and antioxidant properties. Its potential therapeutic efficacy was affirmed by evaluating on streptozotocin-induced diabetic rats.

Advantage

- Pioneering Use of *Bruguiera sexangula* in Diabetes Treatment
- Standardized Extract Targets Diabetes and Associated Oxidative Stress

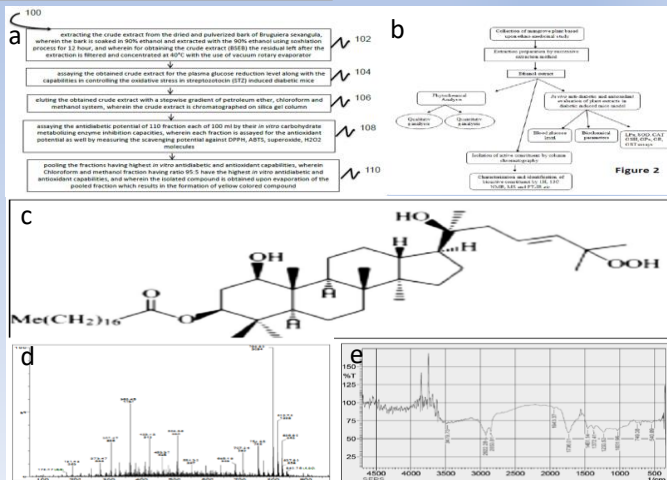
Application

- Diabetes management
- Nutraceutical
- Antioxidant
- Ethnomedicine

Intellectual Property:

Indian Patent application Number: **202131037962**

(Waiting for NBA approval)



Figures

- Method for isolating bioactive fraction
- Flow chart for the isolation of a novel compound of Bruguierin C
- Structure of the novel compound Bruguierin C
- Mass spectrum of the novel compound
- FT-IR spectrum of the novel compound

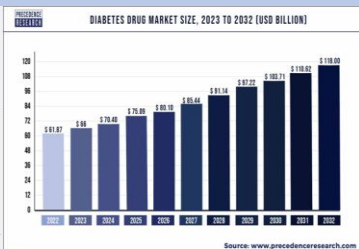
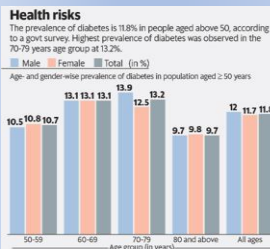
Category of the invention:

- Biomedical Technology
- Natural Medicine and Herbal Remedies
- Diabetes Management
- Plant-Based Therapeutics
- Pharmacology and Drug Development

USP:

- Groundbreaking use of *Bruguiera sexangula* for diabetes treatment
- Standardized extract for comprehensive diabetes management
- Plant-based, non-toxic formulations for enhanced safety
- Effective anti-diabetic activity with minimal side effects
- Simple process with accessible raw materials from Indian mangrove forests

Potential Value



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