TECHNOLOGY AVAILABLE FOR TRANSFER

Highly Potent Herbal Anti-fungal Formulation

Formulation with active ingredients from Elaeocarpus leaves, with anti-microbial properties and potential to be developed as mouthwash, ointment or gel

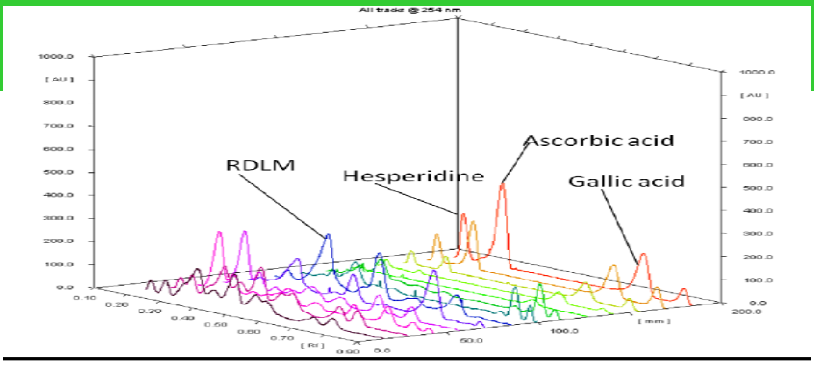

Figure 1 : 3D display of HPTLC chromatograms at 254nm on all tracks

Background

Candida species (yeast) are the most common cause of fungal infections (eg. candidiasis) and cause infections ranging from non-life threatening mucocutaneous illnesses to invasive processes that may involve virtually any organ. *Candida albicans* remains the most common pathogen in oropharyngeal and cutaneous candidiasis. Around 40% of HIV patients experience symptoms of oral candidiasis and about 75% of women get yeast infection in their lifetime. Existing therapeutics, mouthwashes and topical creams against candidiasis are chemically derived and resistance to existing antibiotics has been widely reported.

The present technology provides a herbal alternative to the currently available therapeutics against non-invasive candidiasis.

Technology

Researchers from a University of repute in India have developed an antimicrobial formulation consisting of polyphenol rich leaf extract from *Elaeocarpus sphaericus*. The leaf extract is prepared through a novel, quick and efficient process. The leaf extract obtained is rich in phenolic and flavonoid content and exhibits good radical scavenging activity. The extract further exhibits low MIC values against Candida species when tested against planktonic and biofilm growth.

Potential Applications

As a general purpose anti-microbial mouthwash or as an Anti-Candida mouthwash, ointment or gel

Value Proposition

- Quick, simple and efficient process for preparation of leaf extract enriched with polyphenols and flavonoids and exhibiting anti-fungal and anti-bacterial properties
- Minimum Inhibitory Concentration (MIC) against *Candida albicans* and *Candida glabrata* compares favourably with commercially available mouthwashes (0.31-0.62 mg/ml)
- IC50 for inhibiting Candida adhesion ranges from 0.15-0.31
- IC50 for inhibiting Candida biofilm formation ranges from 0.62-1.25 mg/ml
- Herbal alternative to currently marketed existing chemically Anti-Candida products

Technology Status

Formulation prepared at laboratory scale

Intellectual Property status

Patent Pending

Contact:
Biotech Consortium India Limited
V Floor, Anuvrat Bhawan
210, Deen Dayal Upadhyaya Marg
New Delhi:110 002
Phone: +91-11-23219064-67, 23219053 (Direct) Fax: +91-11-23219063
Email: info.bcil@nic.in Website: www.bcil.nic.in

BCIL