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(54) Title of the invention : ASSESSMENT OF GERMICIDAL ACTIVITY AND PHYTOCHEMICAL EVALUATION OF THE HERB ARISAEMA TORTOUSUM

(51) International classification	:A61K9/00, A61K47/00, A61P31/04, A61K36/888, A61P31/10	(71)Name of Applicant : <b>1)Mr. Swatantr Bahadur Singh</b> Address of Applicant :Assistant Professor, School of Pharmaceutical Sciences, IFTM University, Moradabad, Uttar Pradesh, Pin Code: 244102 Uttar Pradesh India
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(57) Abstract :

The present invention relates to pharmaceutical compositions derived from stem extracts of Arisaema tortuosum exhibiting antimicrobial activity. The ethanolic stem extract demonstrates significant antibacterial activity against Staphylococcus aureus, Bacillus subtilis, Streptococcus pyogenes, Escherichia coli, Agrobacterium tumifaciens, and Pseudomonas aeruginosa, and antifungal activity against Aspergillus niger, Candida albicans, and Cryptococcus neoformans. Phytochemical investigation revealed four  $\beta$ -sitosterol derivatives isolated through column chromatography. Toxicity studies established the safety profile with LD50 of 1840 mg/kg in mice and no adverse effects observed at doses of 500-1000 mg/kg body weight daily for 28 days in rats. The compositions are suitable for treating bacterial and fungal infections with minimal toxic risk, providing a safe therapeutic alternative derived from traditional medicinal plants.

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