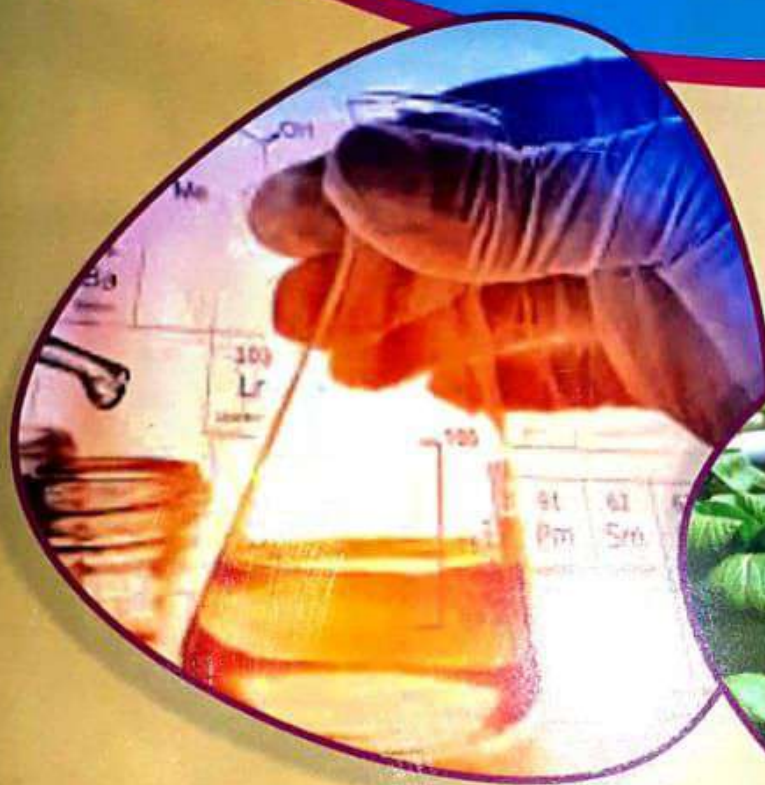


ABSTRACT

6th Student Project Programme

December 14-15, 2022



Organized by:

**TRIPURA STATE COUNCIL
FOR SCIENCE & TECHNOLOGY**

Antidiabetic activity of *Costus Pictus*

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Abstract

Background: According to World Health Organization, about 422 million people worldwide have diabetes, the majority living in low and middle-income countries and 1.5 million deaths are directly attributed to diabetes every year. By 2025, it is the goal of the entire world to stop the rise in diabetes and obesity.

Objective: One of the important target enzymes is α -amylase which breaks the starch molecules into smaller pieces with two or three glucose units. Inhibiting the α -Amylase is one of the strategies to control high sugar level in blood. The main objective of the present study is to identify α -amylase inhibitors from edible leafy plants.

Methods: The compounds of edible retrieved from literature and identified in silico inhibitors from using molecular docking study. The compounds of *Costus pictus* contain potential inhibitors. To validate the theoretical study the powdered plant material was cold macerated in extracting jar, using methanol for 48 hours and filtered at room temperature using a filter paper. The filtrate was then concentrated to dryness by using rotary evaporator 50°C to obtain a gum and studied α -amylase inhibition assay.

Results: The crude leaf extracts of *C. Pictus* exhibited α -amylase inhibition 21.85% at 200 mg/ml

Conclusion: *C. Pictus* leaf may be useful in the prevention and treatment of diabetes because it contains α -amylase and inhibitors.

Keywords: *Costus pictus*, antidiabetic, α -amylase, acarbose, absorbance.



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Certificate of Participation

Aakansa Acharya, Women's College

has participated

in the 6th Student Project Programme for the project entitled
Antidiabetic activity of Costus pictus

organized by Tripura State Council for Science and Technology held at Pragna Bhawan,
Agartala, Tripura on December 14-15, 2022.

Dated, Agartala
December 15, 2022


(B. Chakrabarti)

Joint Member Secretary
Tripura State Council for Science & Technology
(Director, Science, Technology &
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