

Fermentation of *Tolypocladium inflatum* to Produce Cyclosporin in Dairy Waste Culture Medium

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Abstract : In this research, we investigated the usage of dairy sludge in the fermentation process and cyclosporin production. This bioactive compound is a metabolite produced by *Tolypocladium inflatum*. Results showed that about 200 ppm of cyclosporin can be produced in this fermentation. In order to have a proper and specific function, CyA must be free of any impurities, so we need purification. In this downstream processing, we used chromatographic extraction and evaluation of pharmacological activities of cyA. Results showed that the obtained metabolite has very high activity against *Aspergillus niger* (25mm clear zone). This cyclosporin was isolated for use as an antibiotic. The current research shows that this drug is very vital and commercially very important.

Keywords : fermentation, cyclosporin A, *Tolypocladium inflatum*, TLC

Conference Title : ICMMMDE 2022 : International Conference on Medical Microbiology, Microbial Diversity and Evolution

Conference Location : Los Angeles, United States

Conference Dates : October 27-28, 2022