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### *Turbinaria ornata*- A marine algal drug treasure

For the past few decades, compounds from marine algae have been gaining importance due to the vast chemical diversity. In our continuous research on algae, scientific data and traditional claims prompted us to investigate on the brown alga *Turbinaria ornata* (Family: Sargassaceae). The cyclohexane, ethyl acetate and methanolic extracts of *Turbinaria ornata* were subjected to wide pharmacological screening. Among the extracts, cyclohexane exhibited cholinomimetic activity by inhibiting the cholinesterase significantly at  $P < 0.01$  in the presence of acetyl choline, ethyl acetate extract possessed antifungal activity with the MIC of 500 mcg/mL concentration and methanolic extract showed the highest *in vitro* DPPH free radical scavenging activity (70.78%) which was comparable to ascorbic acid, a positive control (78.16%). Also, it showed significant anti-diabetic activity against streptozotocin and anti-obesity activity against Atorvastatin ( $P < 0.001$ ). So, it is very clear that the brown alga has beneficial effects on oxidative stress, microbes, blood glucose levels, cholesterol level, HDL, LDL, body weight due to presence of its chemical constituents like gallic acid, quercetin, oxygenated steroids and glycosides which were identified by various parameters. Thus, *Turbinaria ornata* proved to be a rich source of potential compounds for further research.

### Biography

Sadish Kumar Shanmugam is the Director of I T S College of Pharmacy, Ghaziabad, India. He has been working as a Professor since 2010. He has over 2 decades of research and teaching experience. He is a Member of various professional bodies including Royal Society of Chemistry, UK. He has published 2 books, 30 research articles and presented research papers at conferences held in South Korea, USA, Germany and Egypt and guided over 30 MPharm research projects in Marine and other natural products, guiding PhD projects as well.

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