

# MOLECULE OF MILLENNIUM-TAURINE AND ITS ANALOGUES: A NEW CLASS OF THERAPEUTICS IN HUMAN WELFARE

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Chemicals are not single minded, in differ environment they may be friend or foe. Human body is a reservoir of a large number of molecules with diverse nature of chemical identities influencing the mind and mood. Amino acids constitute a large portion with such agents; one of such agent is Taurine (2-aminoethanesulfonicacid). Its content is high in several human tissues like, heart, brain, liver, kidney and eye. Taurine is 0.1% of total body weight amounting 70 g in a normal human of 70 kg. It has beneficial actions in epilepsy, hypertension, congestive heart failure, liver, eye and in some others. Its preventing role is increasing in various life threaten diseases. Bone loss in women is an old age problem, where it has helping hand. It has been patented for several symptoms and diseases and found to have clinical utility. But being an amino acid, therapeutic use confronts limitations; restricted permeability, higher doses and many more necessitate relooking for the development of pro-drugs (analogues) of taurine exploiting various structural alterations in carbon chain, amino and sulfonic ends. A large number of taurine derivatives have been reported with partial to marked activity. Taurine derivatives like taltarimide, acomprosate and taumustine are already in use as anticonvulsant, anti-alcoholic and anti-cancer agents. Taurine is now part of several energy drinks, functional food, nutraceuticals and anti-ageing formulas. The in depth analysis of these analogues and their biological actions can provide certain clues for further consideration. In presentation attempts have been made to provide synopsis, synthesis and symbiosis of its chemical and biological actions, which may facilitate further research in this area. The successful journey of these heterocycles to clinical utility is a healthy and happy sign and an index of bright future in alleviating such suffering.

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