

CO-Investigator in DBT grant entitled “Prophylactic potential of the extract of the bark of *Terminalia arjuna* (Roxb.ex.Dc.) Wight & Arn. in preventing osteoporosis”

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Osteoporosis is a silent epidemic and a major global health problem. Life-style of school going children contributes to obesity and precocious puberty in girls that predisposes them to osteoporosis and hypertension. An important contributor to such predisposition is Oxidatively modified lipids. These oxylipids induce oxidative stress and regulate molecular signaling that potentiates the pathogenesis of osteoporosis. A survey predicted that 50% of Indians will become osteoporotic in the next decade. Taken together, bone health care is a critical socio economic priority in India. To address this issue, *Terminalia arjuna*, an indigenous tree with several medicinal properties was chosen to study its effect on bone formation, resorption and adipogenesis in human in vitro model. At the conclusion of this project, we hope to generate enough evidence to substantiate the ability of *T.arjuna* in preventing osteoporosis. This has socioeconomic relevance in obtaining clues towards a product to improve bone health.