

**Exploring the Anti-Cancer Potential of *Rhododendron arboreum* Sm.
in Gastric Cancer using *In Vitro* and *In Vivo* Models**

**Thesis submitted in partial fulfillment of the degree of
Doctor of Philosophy in Botany**

By

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80_Recommendation

1. Prioritize further investigation into off-target effects, pharmacokinetics and metabolic pathways in future *in vivo* studies.
2. Future studies will prioritize experimental validation of molecular mechanisms like apoptosis and cell cycle arrest to substantiate the anticancer effects of *R. arboreum*.
3. Future studies will include *R. arboreum* from multiple regions to compare phytochemical variations influenced by geography, season and environment.
4. Future work will focus on strengthening IVIVC through detailed pharmacokinetic studies and expanding efficacy evaluation of *R. arboreum* extracts in gastric and other cancer models.