

























**Conclusion:**

The results from these QSAR analyses provide a useful insight into the structural and electrostatic requirements for binding of a ligand to the PDE-5 receptor and these derivatives 2D, MFA and RSA could provides us useful information for developing extremely potent ligands leading to potential PDE-5 inhibitors. In 2D QSAR, the shape of the molecule is more important in relation to biological activity. In 3D QSAR, MFA studies shows that steric buck groups seem to play a crucial role on preferred locations on the analogs, such that it improves the activity and RSA shows the role of vander waals and electrostatic interactions. Further, the knowledge of this four-feature pharmacophore hypothesis for PDE-5 inhibitors can be very useful for virtual screening to design more potent lead moieties for the treatment of various types of Erectile Dysfunction.

**Acknowledgement:**

We sincerely thank Sai BioSciences Research Institute (SBRI), Chennai for providing lab facilities and we are extremely grateful to Dr. J. A. R. P. Sarma, GVK Biosciences for providing NOC to process part of my research in their lab.

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