



# **Design and Synthesis of Novel Tropane Fused Heterocycles of Potential Pharmacological Properties**

Thesis Presented by

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## **List of Abbreviations**

|                                    |                                                               |
|------------------------------------|---------------------------------------------------------------|
| <b>2D-QSAR:</b>                    | Two Dimensional Quantitative Structure Activity Relationship. |
| <b>5HT<sub>3</sub>:</b>            | Serotonin Type 3 Receptor.                                    |
| <b><math>\alpha</math>7nAChR :</b> | $\alpha$ 7 Nicotinic Acetylcholine Receptor.                  |
| <b>ADC:</b>                        | Arginine Decarboxylase.                                       |
| <b>ADMET:</b>                      | Absorption, Distribution, Metabolism, Excretion, Toxicity.    |
| <b>AGDI:</b>                       | Agmatine Deiminase.                                           |
| <b>BMLR:</b>                       | Best Multi-Linear Regression.                                 |
| <b>CCR5:</b>                       | C-C Chemokine Receptor Type 5.                                |
| <b>CNS:</b>                        | Central Nervous System.                                       |
| <b>DFT:</b>                        | Density Functional Theory.                                    |
| <b>FLIPR:</b>                      | Fluorometric Image Plate Reader.                              |
| <b>H6H:</b>                        | Hyoscyamine 6 $\beta$ -hydroxylase.                           |
| <b>HSP90:</b>                      | Heat Shock Protein 90.                                        |
| <b>NADPH:</b>                      | Dihyronicotinamide-Adenine Dinucleotide Phosphate.            |
| <b>ODC:</b>                        | Ornithine Decarboxylase.                                      |
| <b>PEA:</b>                        | Pulseless Electrical Activity.                                |
| <b>PMT:</b>                        | Putrescine Methyl Transferase.                                |
| <b>QSAR:</b>                       | Quantitative Structure Activity Relationship.                 |
| <b>R<sup>2</sup>:</b>              | Squared Correlation Coefficient                               |
| <b>R<sup>2</sup>cvMO:</b>          | Squared Cross-Validation “leave many-out, LMO” coefficient    |
| <b>R<sup>2</sup>cvOO:</b>          | Squared Cross-Validation “leave one-out, LOO” coefficient.    |
| <b>RAID:</b>                       | Rapid Access to Invention Development.                        |

|                |                                                                           |
|----------------|---------------------------------------------------------------------------|
| <b>REM:</b>    | Rapid Eye Movement.                                                       |
| <b>SAR:</b>    | Structure Activity Relationship.                                          |
| <b>TLC:</b>    | Thin Layer Chromatography.                                                |
| <b>TR-I:</b>   | Tropinone Reductase I.                                                    |
| <b>TR-II:</b>  | Tropinone Reductase II.                                                   |
| <b>UPLIFT:</b> | Understanding Potential Long-Term Impacts on Function<br>with Tiotropium. |