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# Conformational Control Enabled by the Fluorine *Gauche* Effect in a Model of the $\beta_2$ -AR Agonist Salbutamol (Ventolin™)

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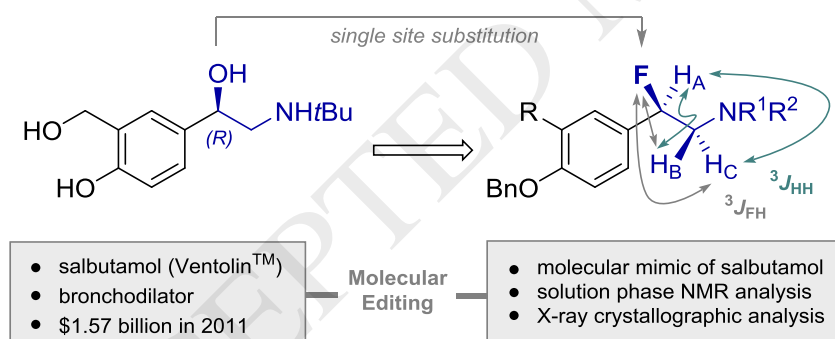
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## Graphical abstract



## Highlights

- Synthesis of two fluorinated derivatives of salbutamol
- Both derivatives are effective conformational mimics of salbutamol in solution as confirmed by NMR conformer population analysis
- Single crystal X-ray structure analysis of one fluorinated derivative allows the torsion angle to be determined and clearly demonstrates the *gauche* effect

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