



CHEMISTRY SEMINAR 291

Axial Chirality as a Tool in Drug Discovery and an Inspiration for New Chemistry

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ABSTRACT

Atropisomerism is a type of chirality that is common in many biologically active small molecules. In the majority of cases, the chiral axis is stereochemically unstable resulting in a rapidly interconverting mixture of enantiomers. While these molecules are not considered chiral they will bind their intended target in a chiral fashion. Over the past five years we have found that this 'latent' chirality can be exploited to improve several properties of lead molecules. These projects have also required the development of new chemical methodologies that allow for the preparation of these compounds in an enantioselective fashion.