ABSTRACT

TITLE:	Asymmetric Total Synthesis of The Antiviral Natural Product (+)- Sattazolin
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ABSTRACT: Sattazolin is a natural product produced by the soil bacteria Bacillus sp. along with other structurally related acyloins sattabacin and 4-hydroxysattabacin. Our research group has previously reported the asymmetric total syntheses of sattabacin and 4-hydroxysattabacin, while the total synthesis of sattazolin had not been reported. Further, the isolation chemists reported an optical rotation for sattazolin but failed to determine the absolute configuration of the hydoxyl bearing stereocenter. Thus, its asymmetric total synthesis was undertaken both to access useful quantities of sattazolin and to determine the absolute configuration of the natural product. This poster describes the completion of the total synthesis of (+)-sattazolin, which allowed for the absolute stereochemistry to be unambiguously assigned. This work finally allows for the preparation of significant quantities of (+)-sattazolin that will be used to study the unique mechanism by which these compounds inhibit viral growth.