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Sphingofungins, compounds consisting of polar polyhydroxyl amino head groups, and long lipid chains, are membrane constituent involved in a number of cellular events including protein binding and transmembrane signaling.
We now report concise synthesis of sphingofungin F. The key steps of our syntheses are diastereoselective alkylation of oxazoline, diastereoselective addition of g-alkoxy allylic stannane, and palladium-catalyzed coupling of vinyl iodide with alkylzinc.

[PD1-54] [10/19/2001 (Fri) 14:00 - 17:00 / Hall D]

Total Synthesis of Myriocin

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Myriocin was first isolated from the fermentation broth of the thermophilic fungi, Myriococcus albomyces and Mycelia sterila as an antifungal principle in 1972. It have a quaternary center, three consecutive chiral centers and trans-olefinic group in polar hydroxyl amino head group.
Herein, we report an enantioselective strategy for the total synthesis of myriocin that features the use of the stereoselective intramolecular cyclization of homoallyl benzamide via p-allylpalladium complex catalyzed by Pd(0).
Our convergent, stereocontrolled synthesis of myriocin was executed via palladium-catalyzed coupling between polar head group and long lipid chain. The polar hydroxyl amino head group was synthesized by using diastereoselective hydroxymethylation of oxazoline and asymmetric allylation.

[PD1-55] [10/19/2001 (Fri) 14:00 - 17:00 / Hall D]

A Simple Synthesis of Rutaecarpine

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Rutaecarpine is one of the indoloquinazoline alkaloids of the Rutaceous plants such as *Evodia rutaecarpa* which has long been utilized for the treatment of inflammation-related disorders in the traditional oriental medicinal practice. Recent research revealed that such an antiinflammatory activity stemmed from the attribution of rutaecarpine by a quite potent and selective inhibitory activity onto COX-2. Addition to antiinflammatory activity, the vasorelaxing, antiplatelet, and antianoxic activities were reported for rutaecarpine. The derivative, dehydroevodiamine was found to show a potent and promising activity on Alzheimer disease. Such interesting biological activities prompted us to design a simple synthetic route for the synthesis of rutaecarpine. We herein describe a simple 6 step synthesis of rutaecarpine from readily available anthranilic acid *via* 9,10,11,12-tetrahydro-4*H*-pyrido[2,1-*b*]-quinazoline-4,9-dione as a key intermediate.

[PD1-56] [10/19/2001 (Fri) 14:00 - 17:00 / Hall D]

Total Synthesis of (+)-Lauthisan