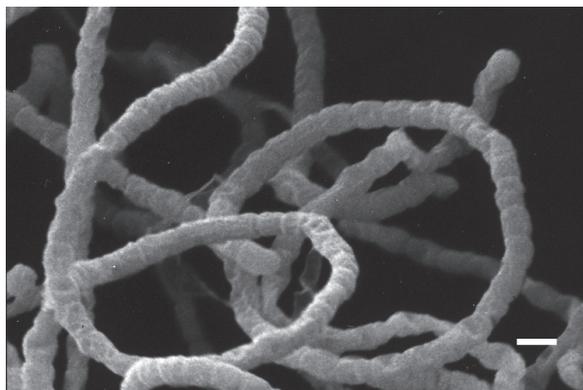


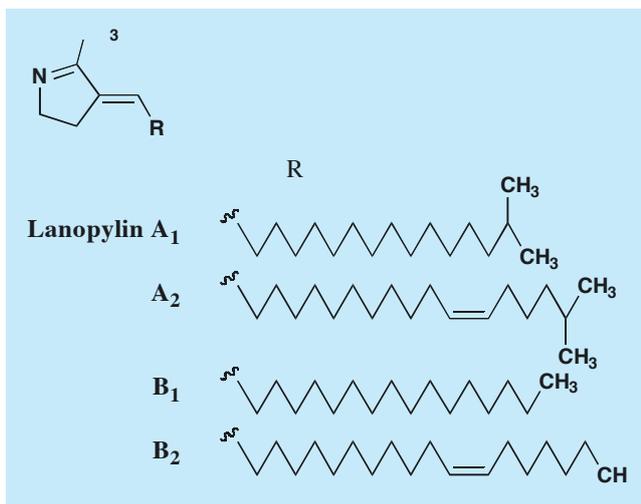
Lanopylin

1. Discovery, producing organism and structures^{1,2)}

Lanopylins A₁, B₁, A₂ and B₂ were isolated from the culture broth of the actinomycete strain K99-5041 as lanosterol synthase inhibitors. These compounds are the first lanosterol synthase inhibitors of microbial origin. They are the first natural compounds having a (3*E*)-methylidene-2-methyl-1-pyrroline backbone. The total synthesis of lanopylin B₁ was reported by Snider *et al.*²⁾



Streptomyces sp. K99-5041



2. Physical data (Lanopylin A₁)

Colorless oil. C₂₂H₄₁N; mol wt 319.57. Sol. in CHCl₃.

3. Biological activity¹⁾

Inhibitory activity of lanopylins against recombinant human lanosterol synthase activity was investigated. Lanopylins A₁ and B₁ showed potent inhibition with IC₅₀ values of 15 and 18 μM, respectively.

Inhibition of lanosterol synthase	
	IC ₅₀ (μM)
Lanopylin A ₁	15
A ₂	33
B ₁	18
B ₂	41

3. Biological activity1)

- [846] Y. Sakano *et al.*, *J. Antibiot.* **56**, 817-826 (2003)
- B. B. Snider *et al.*, *J. Org. Chem.* **70**, 1087-1088 (2005)