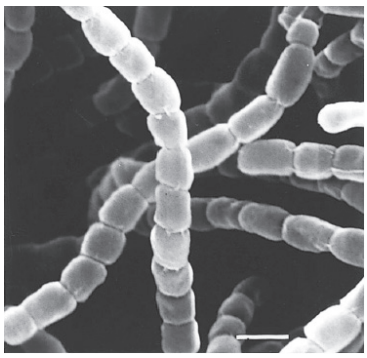
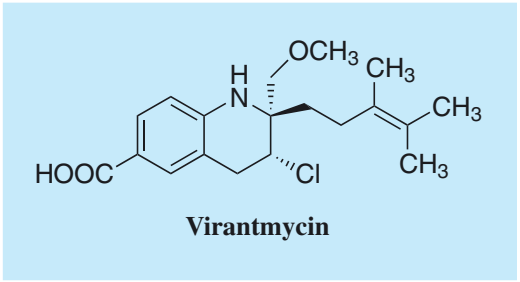
Virantmycin

1. Discovery, producing organism and structure[1-3)]

Virantmycin was isolated from the culture broth of *Streptomyces nitrosporeus* strain AM-2722 and identified as an antiviral compound by the plaque reduction method. The absolute configuration of virantmycin was elucidated by antipodal virantmycin synthesis.[4)] The total synthesis of virantmycin has been reported by many group, the first total synthesis being reported by Raphael *et al*.[5)] (See A ppendix-I).



Streptomyces nitrosporeus AM-2722



Virantmycin

2. Physical data[1)]

White powder. $C_{19}H_{26}NO_3Cl$; mol wt 351.16. Sol. in MeOH, acetone, $CHCl_3$, benzene, EtOAc. Insol. in H_2O.

3. Biological activity[2)]

Virantmycin inhibits plaque formation caused by both RNA and DNA viruses at relatively low concentrations.

Virantmycin concentration (μg/ml)	% of plaque reduction							
	RNA virus				DNA virus			
	VSV	NDV	WEE	SbV	Vac-DIE	Vac-IHD	HSV-1	HSV-2
0.001	1	0	27	0	0	23	0	0
0.01	97	85	100	100	94	86	28	37
0.1	97	85	100	100	99	100	99	99
1	98	100	100	100	99	100	100	100
10	100	100	100	100	100	100	100	100

4. References

1. [195] S. Ōmura *et al*., *J*. *Antibiot*. **33,** 1395-1396 (1980)
2. [218] A. Nakagawa *et al*., *J*. *Antibiot*. **34**, 1408-1415 (1981)
3. [209] S. Ōmura *et al*., *Tetrahedron Lett*. **22**, 2199-2202 (1981)
4. [399] Y. Morimoto *et al*., *Chem*. *Lett*. **1988**, 909-912 (1988)
5. R. A. Paphael *et al*., *Te trahedron Lett*. **27**, 1293-1296 (1986)