

EDITORIAL

Achievements of Professor Satoshi Ōmura

The Journal of Antibiotics (2017) **70**, 457–491; doi:10.1038/ja.2017.36

During his 50 years of pioneering research, Professor Satoshi Ōmura, Nobel Laureate and Emeritus Editor-in-Chief of *The Journal of Antibiotics*, has discovered 181 groups of new microbial metabolites, encompassing nearly 500 compounds. This editorial lists those groups, together with a representative chemical structure, producing strains and the initial publication (Figure 1 and Table 1). For much of his storied career, Professor Satoshi Ōmura has also been intimately linked with *The Journal of Antibiotics* and we are extremely proud that he has published 87% of his initial new compound publications in this journal. Professor Ōmura's philosophy behind his success has been relatively and refreshing simple, 'Isolate the greatest variety of microorganisms especially unique species, continually develop innovative assay systems, and perseveringly screen for new and useful bioactive compounds using those microbes and assays.' The

scope, scale and impact of his discoveries prove the merits of such an approach that others would do well to follow. This editorial also shows the complete list of his publication in *The Journal of Antibiotics* (see list of Publications of Professor Satoshi Ōmura in *The Journal of Antibiotics*).

ACKNOWLEDGEMENTS

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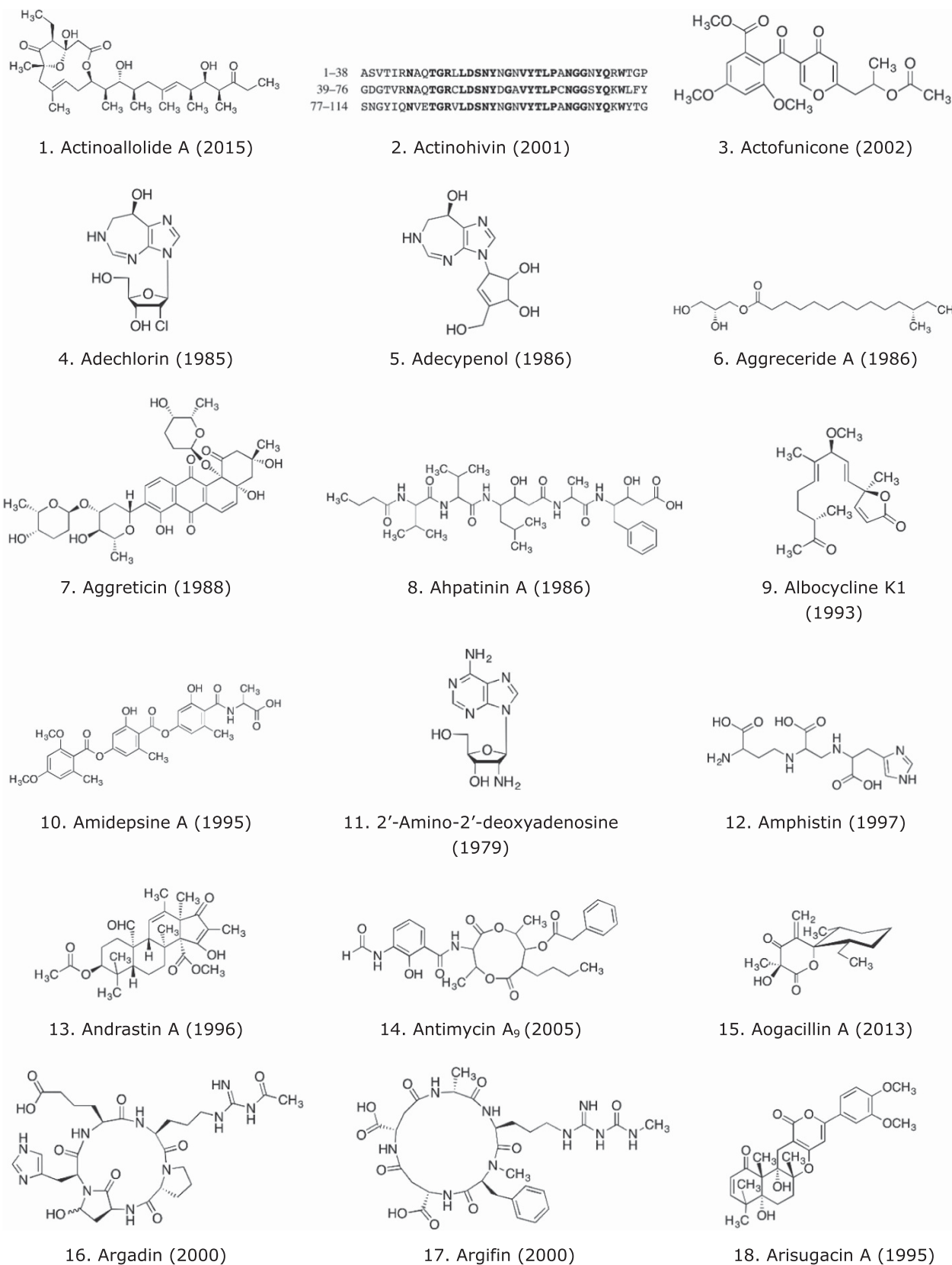


Figure 1 Structures of the new compounds discovered by Professor Satoshi Omura.

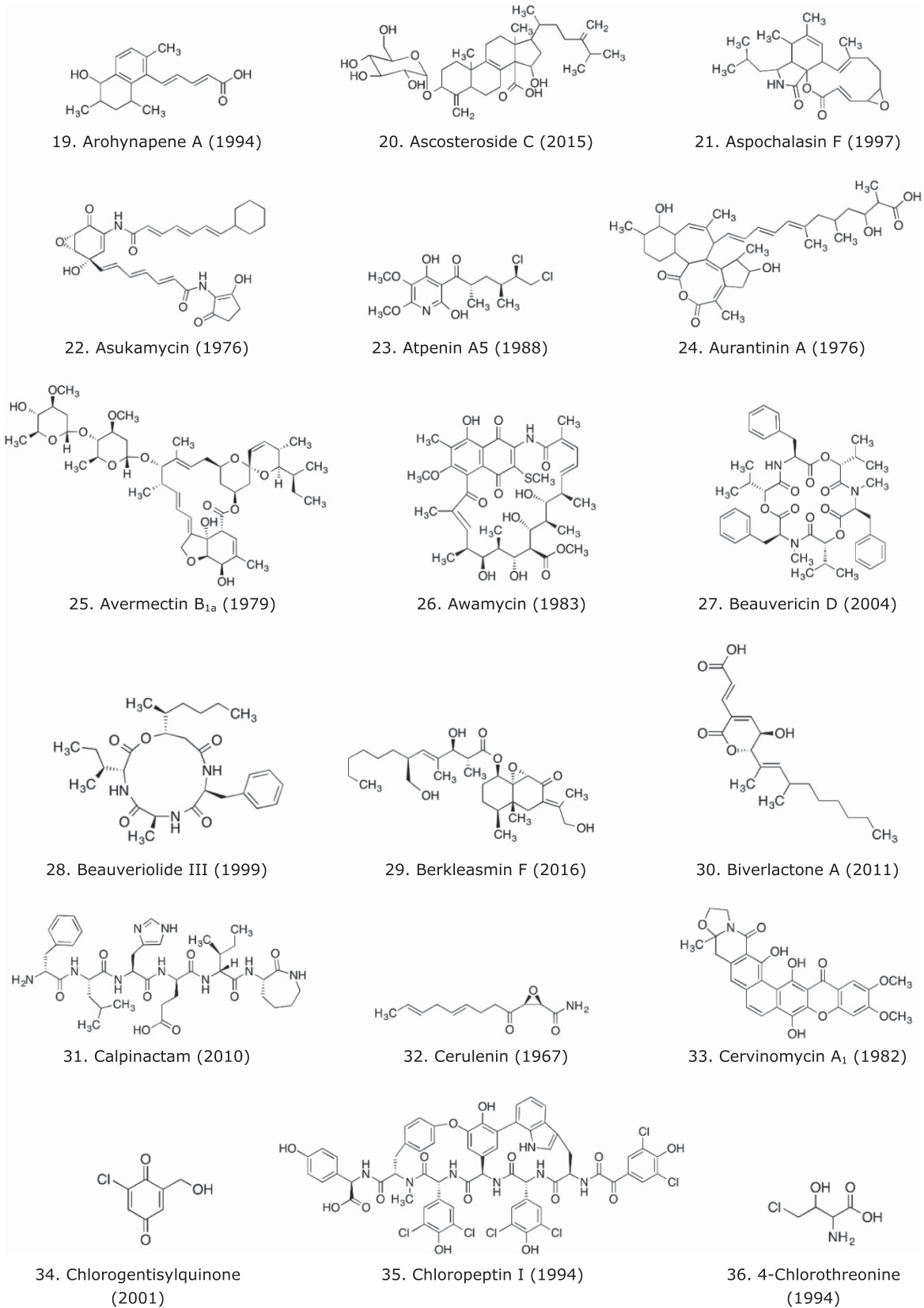


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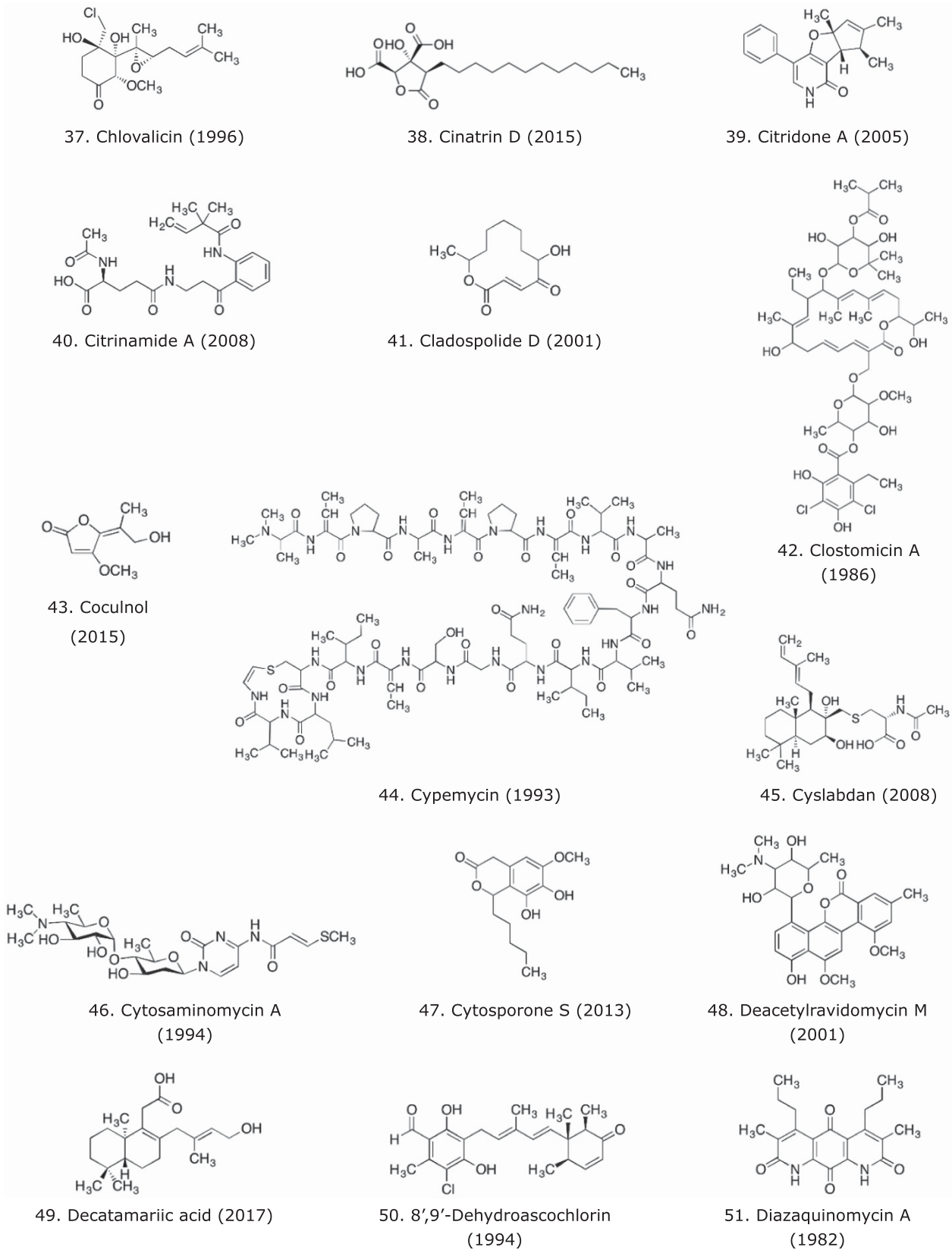
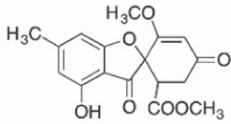
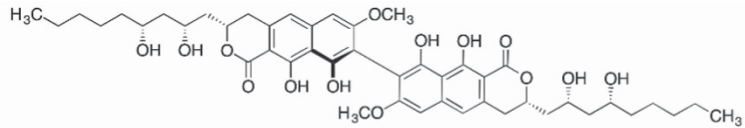


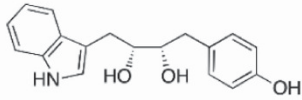
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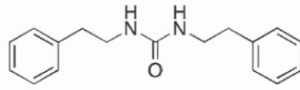
52. Dihydrobisdechlorogodin (1996)



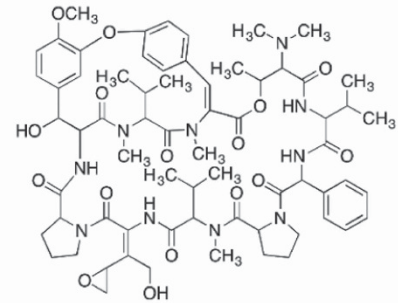
53. Dinapinone A1 (2011)



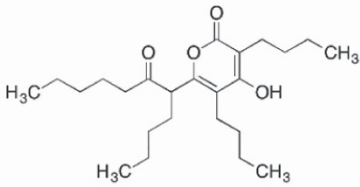
54. Diolmycin A1 (1993)



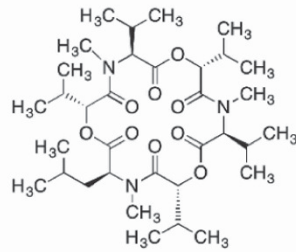
55. 1,3-Diphenethylurea (1978)



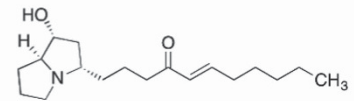
56. Dityromycin (1977)



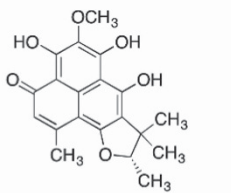
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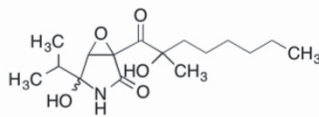
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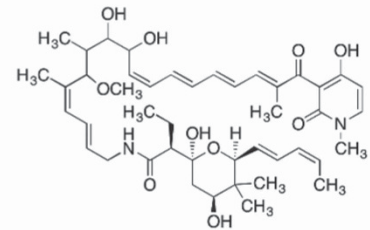
59. Epohelmin A (2004)



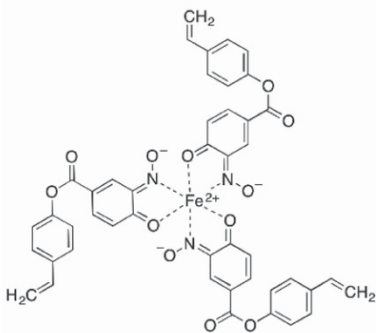
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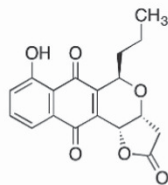
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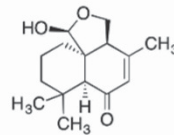
62. Factumycin (1982)



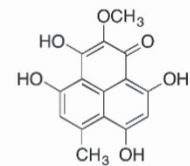
63. Ferroverdin A (1999)



64. Frenolicin B (1978)

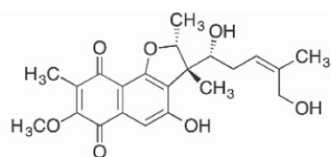


65. Fudecalone (1995)

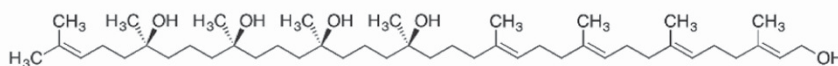


66. Funalenone (1999)

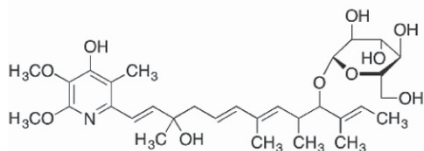
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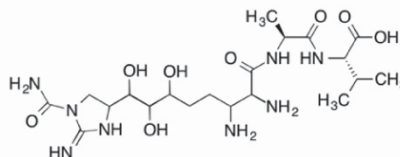
67. Furaquinocin A (1989)



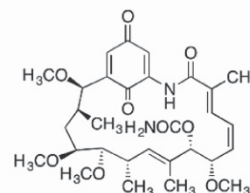
68. Glisoprenin A (1992)



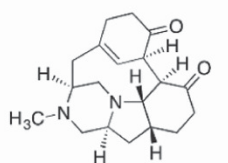
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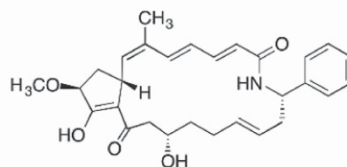
70. Guadinomine A (2008)



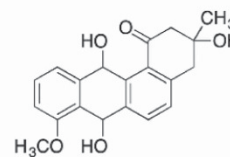
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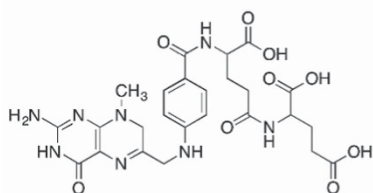
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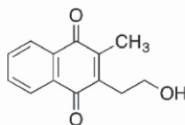
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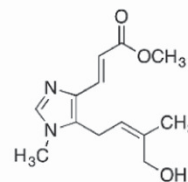
74. Hydranthomycin (1995)



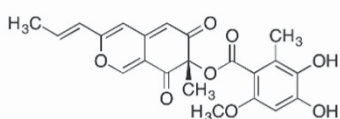
75. 7-Hydro-8-methylpteroylglutamylglutamic acid (1987)



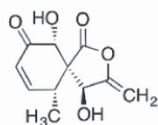
76. 2-(2-Hydroxyethyl)-3-methyl-1,4-naphthoquinone (2000)



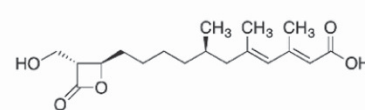
77. Hydroxyfungerin A (2005)



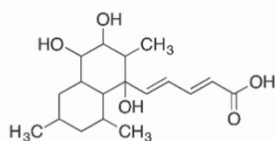
78. 6'-Hydroxy-3'-methoxymitoruburin (2010)



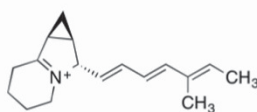
79. 6-epi-5'-Hydroxymycosporulone (1999)



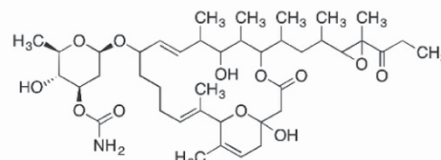
80. Hymeglusin (1233A) (1987)



81. Hynapene A (1993)

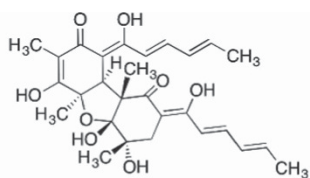


82. Iminimycin A (2016)

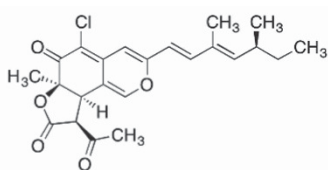


83. Irumamycin (1982)

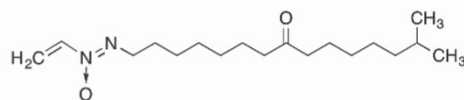
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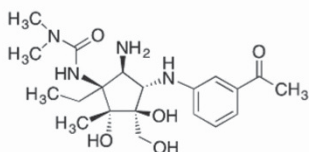
84. Isobisvertinol (2007)



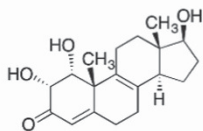
85. Isochromophilone I (1993)



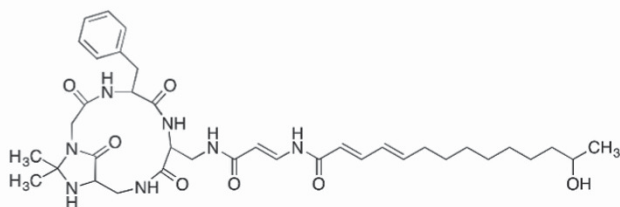
86. Jietacin A (1987)



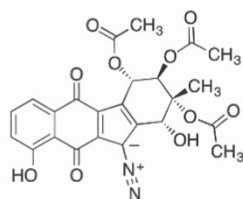
87. Jogyamycin (2012)



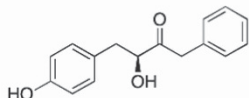
88. K10-0216 KA (2014)



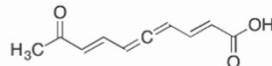
89. K97-0239 A (2002)



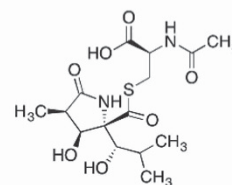
90. Kinamycin A (1971)



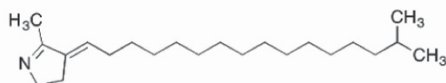
91. Kurasoin A (1996)



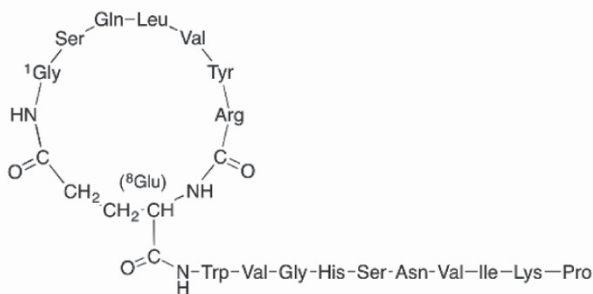
92. LA-1 (1976)



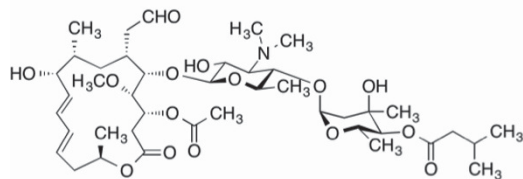
93. Lactacystin (1991)



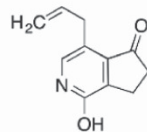
94. Lanopylin A₁ (2003)



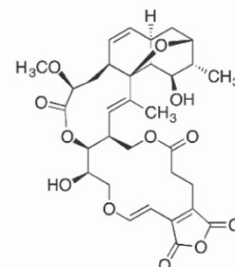
95. Lariatins A (2007)



96. Leucomycin A₃ (1966)



97. Louisianin A (1995)



98. Luminamicin (1985)

Figure 1 Continued.

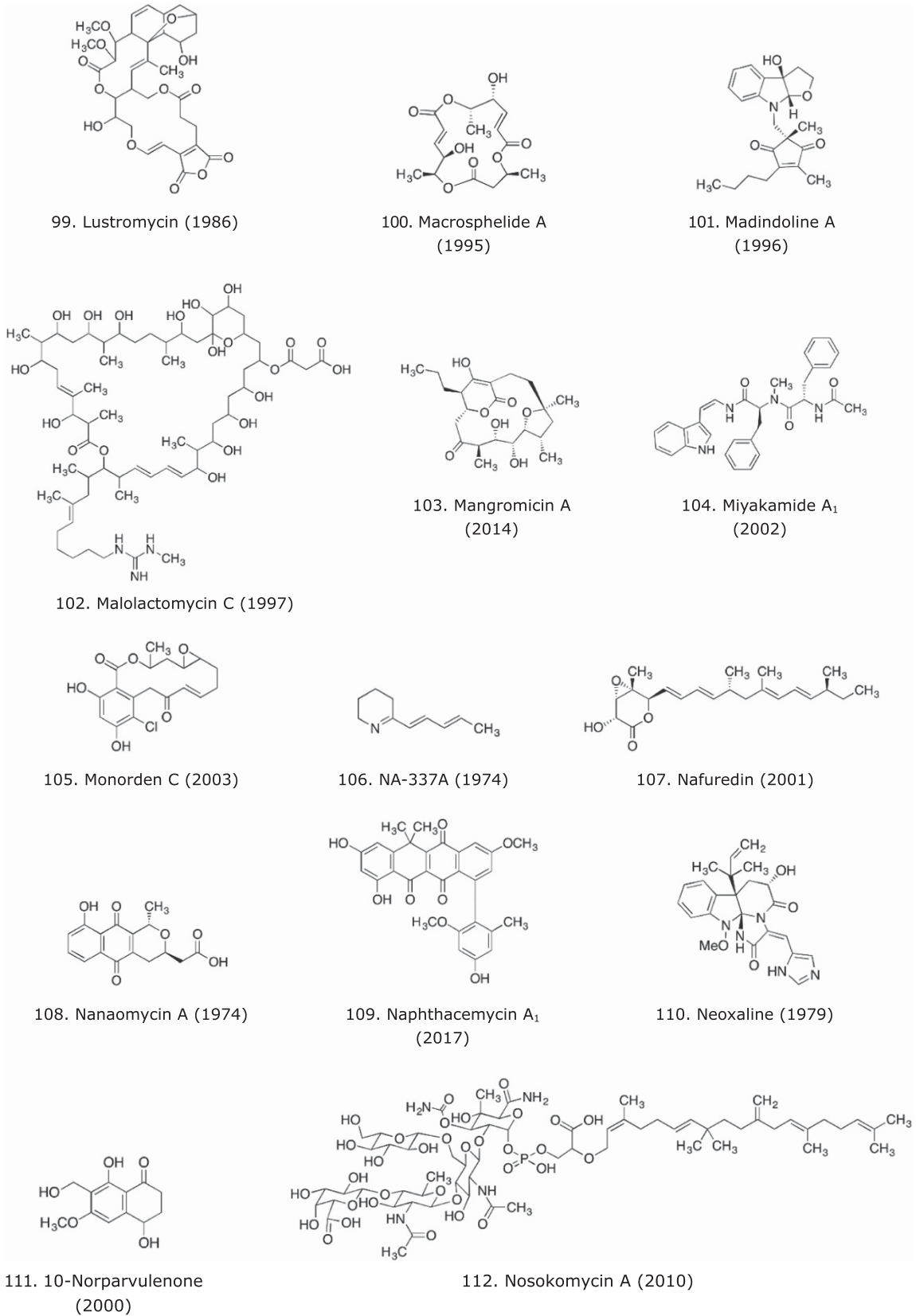


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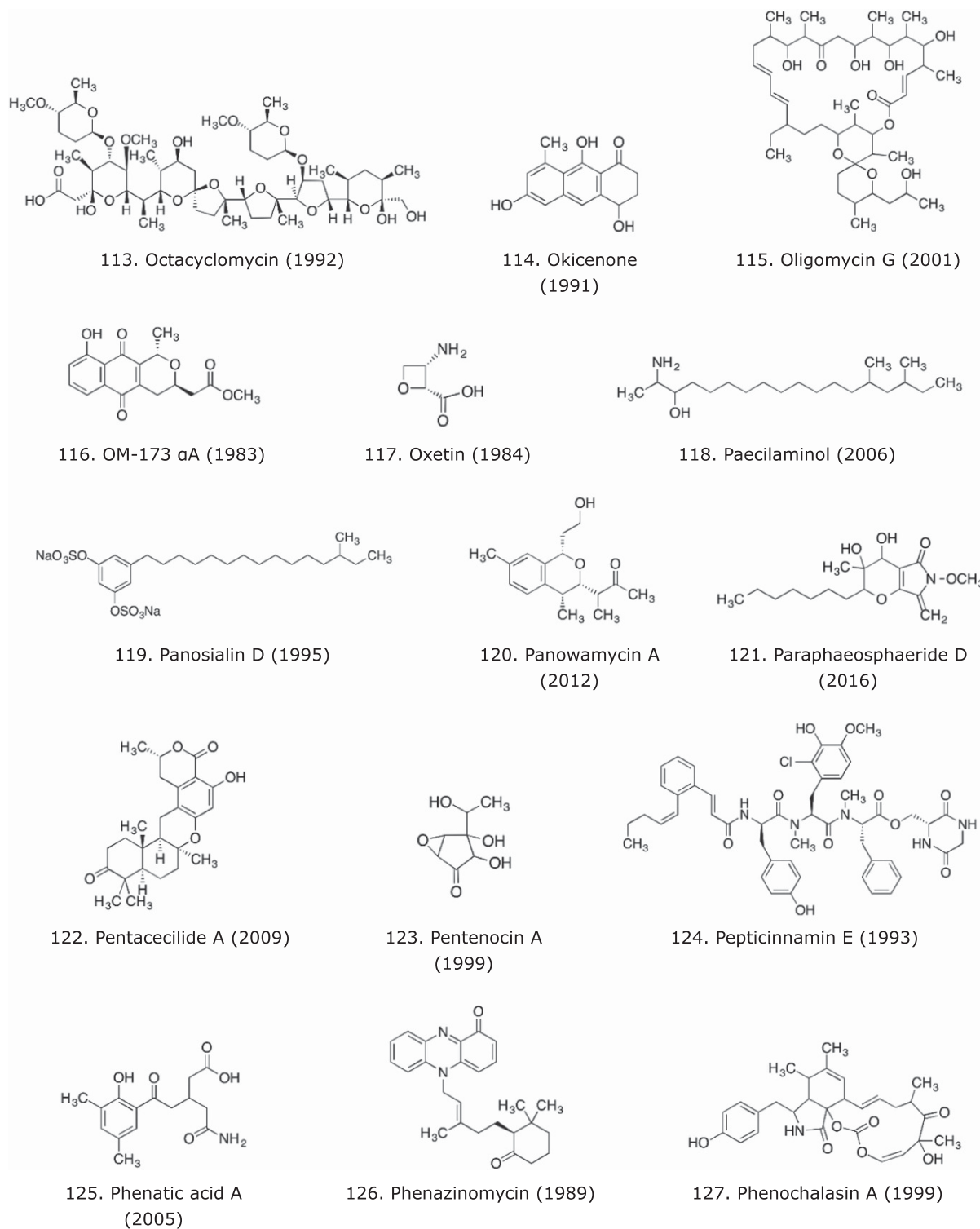


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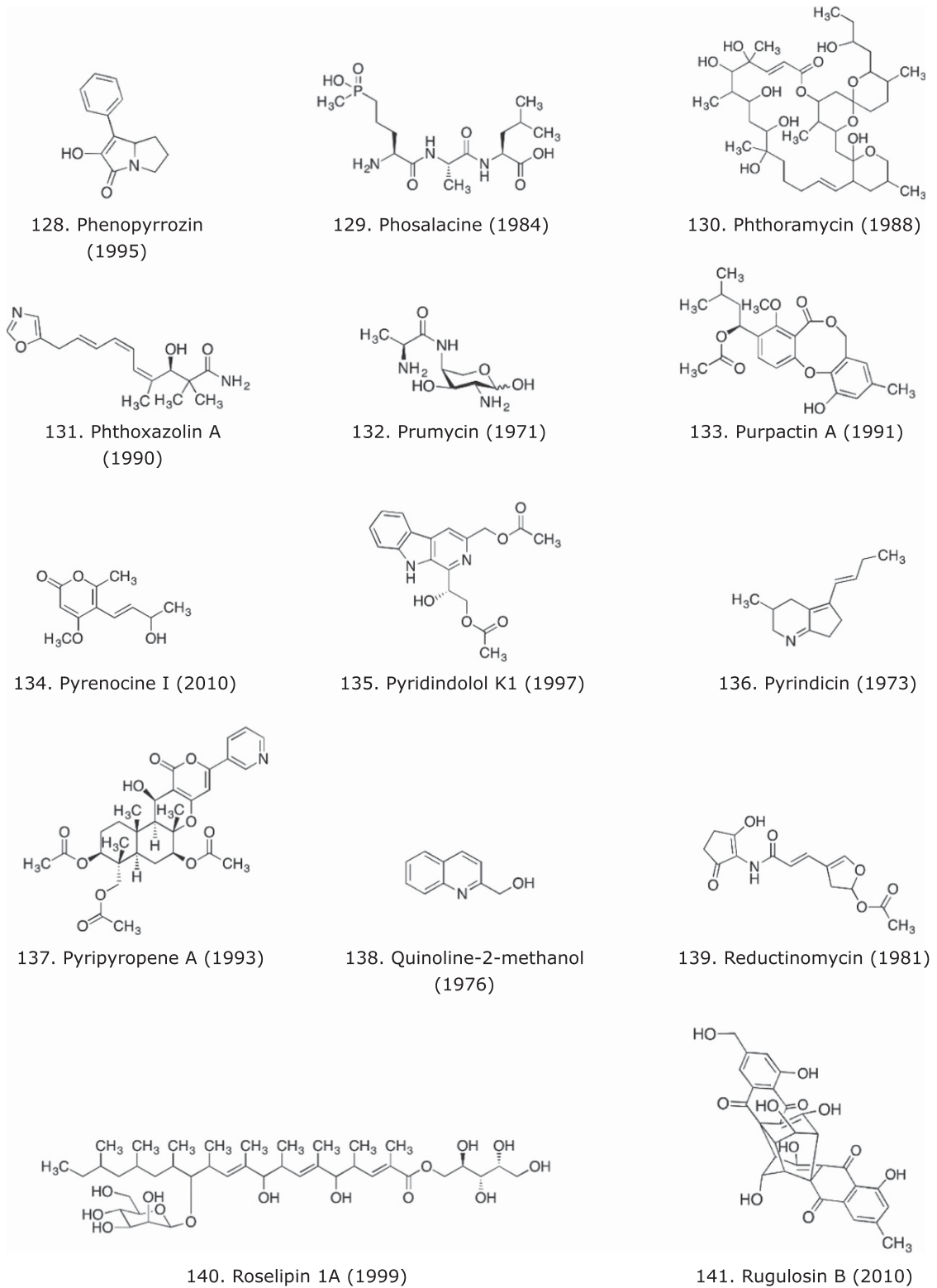
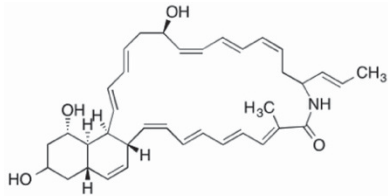
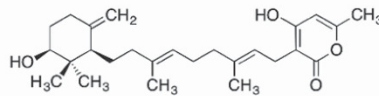


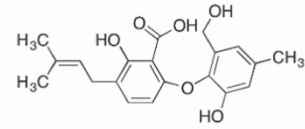
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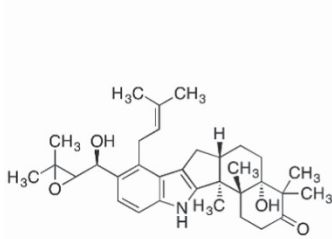
142. Sagamilactam (2016)



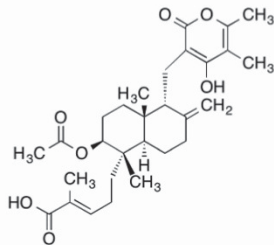
143. Sartorypyrone D (2015)



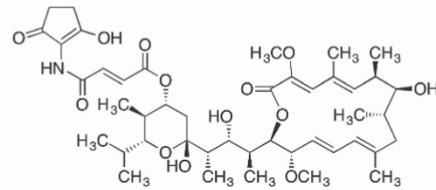
144. Secopenicillide C (2011)



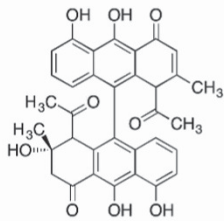
145. Suspendole (2006)



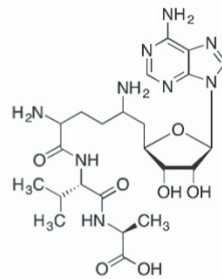
146. Sesquicillin B (2005)



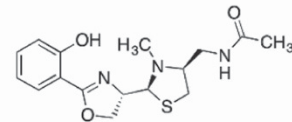
147. Setamycin (1981)



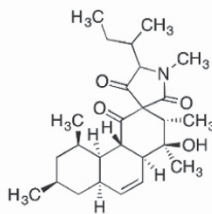
148. Setomimycin (1978)



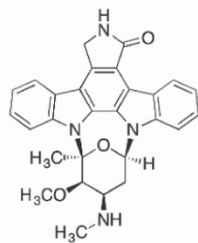
149. Sinefungin VA (2010)



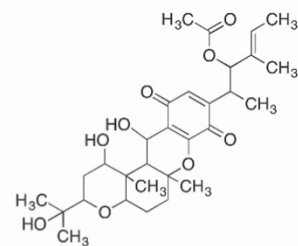
150. Spoxazomicin A (2011)



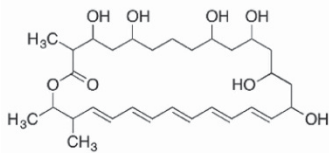
151. Spylidone (2005)



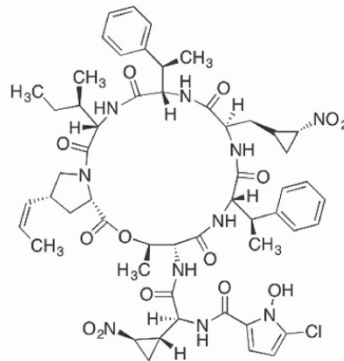
152. Staurosporine (1977)



153. Stemphone B (2005)



154. Takanawaene A (2003)



155. Takaokamycin (1984)

Figure 1 Continued.

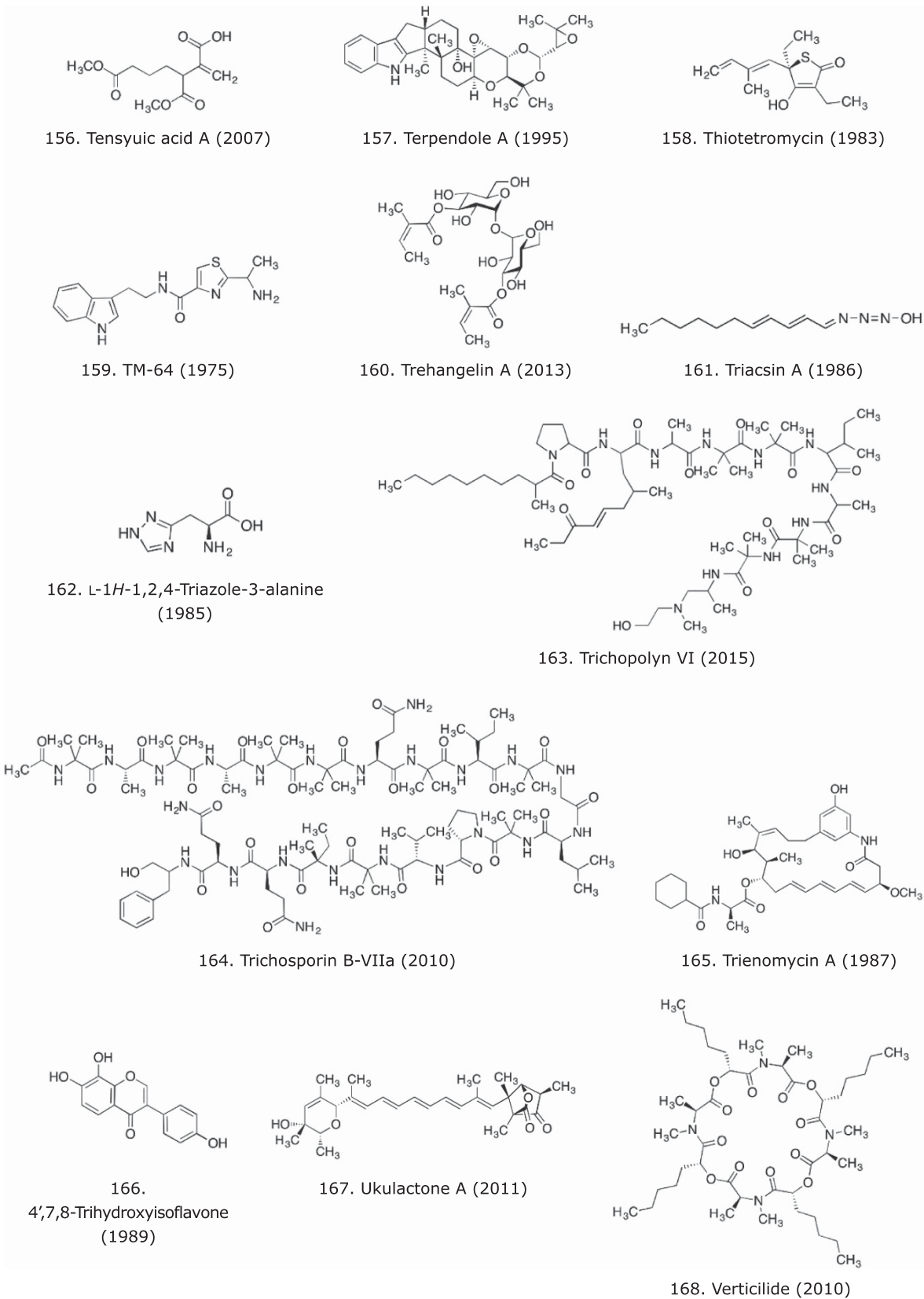


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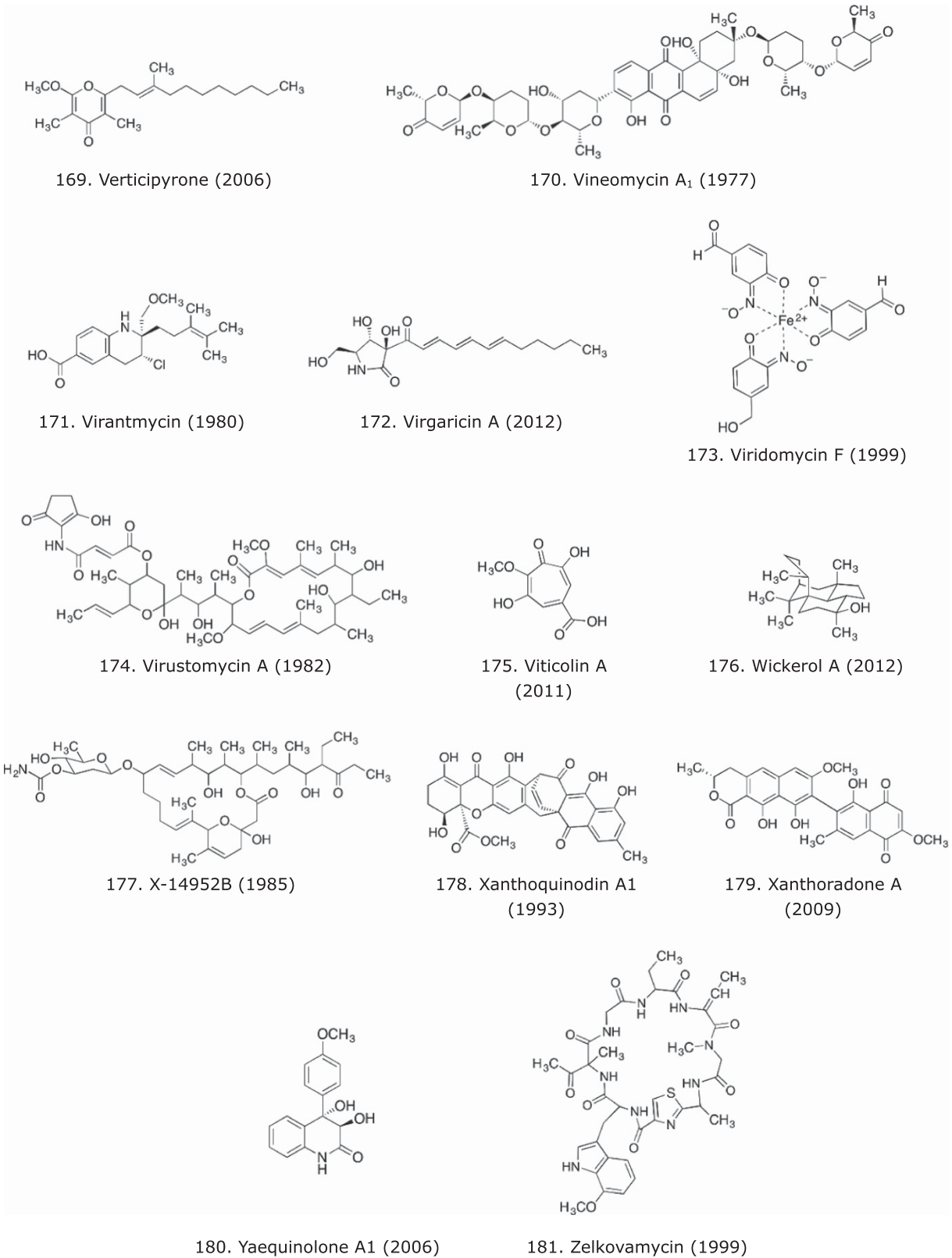


Figure 1 Continued.

Table 1 List of the producing strains and the initial publications of the new compounds

No.	Compound	Producing strain	Year	Journal title	Volume	
					no.	Page range
1.	Actinoallolide A	<i>Actinoallomurus fulvus</i> MK10-036	2015	Org. Lett.	17	864–867
2.	Actinohivin	<i>Longispora albida</i> K97-0003 [†]	2001	J. Antibiot.	54	818–826
3.	Actofunicone	<i>Talaromyces fluvas</i> FKI-0076	2002	J. Antibiot.	55	172–180
4.	Adechlorin	<i>Actinomadura</i> sp. OMR-37	1985	J. Antibiot.	38	1008–1015
5.	Adecyepenol	<i>Streptomyces</i> sp. OM-3223	1986	J. Antibiot.	39	309–310
6.	Aggreceride A	<i>Streptomyces</i> sp. OM-3209	1986	J. Antibiot.	39	1180–1181
7.	Aggreticin	<i>Streptomyces</i> sp. OM-4842	1988	J. Antibiot.	41	812–813
8.	Ahpatinin A	<i>Streptomyces</i> sp. WK-142	1986	J. Antibiot.	39	1079–1085
9.	Albocycline K1	<i>Streptomyces</i> sp. OH-3984	1993	J. Antibiot.	46	1520–1525
10.	Amidepsine A	<i>Humicola grisea</i> FO5969	1995	J. Antibiot.	48	937–941
11.	2'-Amino-2'-deoxyadenosine	<i>Actinomadura corallina</i> SA-4427 [†]	1979	J. Antibiot.	32	1367–1369
12.	Amphistin	<i>Streptomyces</i> sp. KP-3052	1997	J. Antibiot.	50	808–814
13.	Andrastin A	<i>Penicillium simplicissimum</i> FO-3929	1996	J. Antibiot.	49	414–417
14.	Antimycin A ₉	<i>Streptomyces</i> sp. K01-0031	2005	J. Antibiot.	58	74–78
15.	Aogacillin A	<i>Simplicillium</i> sp. FKI-5985	2013	Org. Lett.	15	4678–4681
16.	Argadin	<i>Clonostachys</i> sp. FO-7314	2000	Chem. Pharm. Bull.	48	1442–1446
17.	Argifin	<i>Clonostachys grammicosporopsis</i> FTD-0668	2000	J. Antibiot.	53	603–608
18.	Arisugacin A	<i>Penicillium echinulatum</i> FO-4259	1995	J. Antibiot.	48	745–746
19.	Arohynapene A	<i>Penicillium</i> sp. FO-2295	1994	J. Antibiot.	47	46–53
20.	Ascosteroside C	<i>Aspergillus</i> sp. FKI-6682	2015	J. Antibiot.	68	649–652
21.	Aspochalasin F	<i>Aspergillus</i> sp. FO-4282	1997	J. Antibiot.	50	919–925
22.	Asukamycin	<i>Streptomyces nudosus</i> subsp. <i>asukaensis</i> AM-1042 [†]	1976	J. Antibiot.	29	876–881
23.	Atpenin A5	<i>Penicillium oxalicum</i> FO-125	1988	J. Antibiot.	41	1769–1773
24.	Aurantinin A	<i>Bacillus aurantinus</i> KM-214	1976	J. Antibiot.	29	477–478
25.	Avermectin B _{1a}	<i>Streptomyces avermectinius</i> (<i>S. avermitilis</i>) MA-4680 [†]	1979	Antimicrob. Agents Chemother.	15	361–367
26.	Awamycin	<i>Streptomyces</i> sp. 80-217	1983	J. Antibiot.	36	1144–1149
27.	Beauvericin D	<i>Beauveria</i> sp. FKI-1366	2004	J. Antibiot.	57	110–116
28.	Beauveriolide III	<i>Beauveria</i> sp. FO-6979	1999	J. Antibiot.	52	1–6
29.	Berkleasmin F	<i>Paraphaeosphaeria</i> sp. TR-022	2016	J. Antibiot.	69	605–610
30.	Biverlactone A	<i>Penicillium</i> sp. FKI-4429	2011	Tetrahedron	67	6644–6648
31.	Calpinactam	<i>Mortierella alpina</i> FKI-4905	2010	J. Antibiot.	63	183–186
32.	Cerulenin	<i>Sarocladium oryzae</i> KF-140	1967	J. Antibiot.	20	344–348
33.	Cervinomycin A ₁	<i>Streptomyces cervinus</i> AM-5344 [†]	1982	J. Antibiot.	35	645–652
34.	Chlorogentisylquinone	<i>Phoma</i> sp. FOM-8108	2001	J. Antibiot.	54	882–889
35.	Chloroheptin I	<i>Streptomyces</i> sp. WK-3419	1994	J. Antibiot.	47	1173–1174
36.	4-Chlorothreonine	<i>Streptomyces</i> sp. OH-5093	1994	J. Antibiot.	47	1165–1166
37.	Chlovalicin	<i>Sporothrix</i> sp. FO-4649	1996	J. Antibiot.	49	631–634
38.	Cinatriin D	<i>Virgaria boninensis</i> FKI-4958	2015	J. Antibiot.	68	633–637
39.	Citridone A	<i>Penicillium</i> sp. FKI-1938	2005	J. Antibiot.	58	309–314
40.	Citrinamide A	<i>Penicillium</i> sp. FKI-1938	2008	J. Antibiot.	61	550–555
41.	Cladospolidin D	<i>Cladosporium</i> sp. FT-0012	2001	J. Antibiot.	54	635–641
42.	Clostomicin A	<i>Micromonospora echinospora</i> subsp. <i>armeniaca</i> KMR-593 [†]	1986	J. Antibiot.	39	1407–1412
43.	Coculnol	<i>Fusarium solani</i> FKI-6853 and <i>Talaromyces</i> sp. FKA-65	2015	J. Antibiot.	68	530–532
44.	Cypemycin	<i>Streptomyces</i> sp. OH-4156	1993	J. Antibiot.	46	1666–1671
45.	Cyslabdan	<i>Streptomyces cyslabdanicus</i> K04-0144 [†]	2008	J. Antibiot.	61	1–6
46.	Cytosaminomycin A	<i>Streptomyces amakusaensis</i> KO-8119	1994	J. Antibiot.	47	774–781
47.	Cytosporone S	<i>Trichoderma</i> sp. FKI-6626	2013	Bioorg. Med. Chem. Lett.	23	679–681
48.	Deacetylavidomycin M	<i>Streptomyces</i> sp. WK-6326	2001	J. Antibiot.	54	554–561
49.	Decatamariic acid	<i>Aspergillus tamaris</i> FKI-6817	2017	J. Antibiot.	70	395–399
50.	8',9'-Dehydroascochlorin	<i>Verticillium</i> sp. FO-2787	1994	Chem. Pharm. Bull.	42	953–956
51.	Diazaquinomycin A	<i>Streptomyces</i> sp. OM-704	1982	J. Antibiot.	35	1425–1429
52.	Dihydrobisdechlorogeodin	<i>Chrysosporium</i> sp. FO-4712	1996	J. Antibiot.	49	1056–1059
53.	Dinapinone A1	<i>Talaromyces pinophilus</i> FKI-3864	2011	J. Antibiot.	64	489–494
54.	Diolmycin A1	<i>Streptomyces</i> sp. WK-2955	1993	J. Antibiot.	46	756–761
55.	1,3-Diphenethylurea	<i>Streptomyces</i> sp. AM-2498	1978	J. Antibiot.	31	375–376
56.	Dityromycin	<i>Streptomyces</i> sp. AM-2504	1977	Agric. Biol. Chem.	41	1827–1828
57.	Elasnin	<i>Streptomyces noboritoensis</i> KM-2753	1978	Biochem. Biophys. Res. Commun.	83	704–709
58.	Enniatin D	<i>Fusarium</i> sp. FO-1305	1992	J. Antibiot.	45	1207–1215
59.	Epohelmin A	Fungal strain FKI-0929	2004	J. Antibiot.	57	564–568
60.	Erabulenol A	<i>Penicillium</i> sp. FO-5637	1998	J. Antibiot.	51	618–623
61.	Euvesperin A	<i>Metarhizium</i> sp. FKI-7236	2016	J. Antibiot.	69	719–722
62.	Factumycin	<i>Streptomyces lavendulae</i> OS-4369	1982	J. Antibiot.	35	1705–1707
63.	Ferroverdin A	<i>Streptomyces</i> sp. WK-5344	1999	J. Antibiot.	52	1101–1107
64.	Frenolicin B	<i>Streptomyces roseofulvus</i> AM-3867	1978	J. Antibiot.	31	959–965
65.	Fudecalone	<i>Penicillium</i> sp. FO-2030	1995	J. Antibiot.	48	53–58
66.	Funalenone	<i>Aspergillus niger</i> FO-5904	1999	J. Antibiot.	52	1095–1100
67.	Furaquinocin A	<i>Streptomyces</i> sp. KO-3988	1989	Tetrahedron Lett.	30	7427–7430

Table 1 (Continued)

No.	Compound	Producing strain	Year	Journal title	Volume	
					no.	Page range
68.	Glisoprenin A	<i>Gliocladium</i> sp. FO-1513	1992	J. Antibiot.	45	1202–1206
69.	Glucopiericidinol A ₁	<i>Streptomyces</i> sp. OM-5689	1989	J. Antibiot.	42	1734–1740
70.	Guadinomine A	<i>Streptomyces</i> sp. K01-0509	2008	J. Antibiot.	61	222–229
71.	Herbimycin A	<i>Streptomyces hygroscopicus</i> AM-3672	1979	J. Antibiot.	32	255–261
72.	Herquiline A	<i>Penicillium herquei</i> Fg-372	1979	J. Antibiot.	32	786–790
73.	Hitachimycin	<i>Streptomyces scabrisporus</i> KM-4927 ^T	1982	Tetrahedron Lett.	23	4713–4716
74.	Hydranthomycin	<i>Streptomyces</i> sp. K93-5305	1995	J. Antibiot.	48	1525–1526
75.	7-Hydro-8-methylpteroyl-glutamylglu-tamic acid	<i>Promicromonospora sukumoe</i> SK-2049 ^T	1987	J. Antibiot.	40	251–257
76.	2-(2-Hydroxyethyl)-3-methyl-1,4-naphthoquinone	<i>Actinoplanes capillaceus</i> K95-5561 ^T	2000	J. Antibiot.	53	1212–1214
77.	Hydroxyfungerin A	<i>Metarhizium</i> sp. FKI-1079	2005	J. Antibiot.	58	808–809
78.	6'-Hydroxy-3'-methoxy-mitoruburin	<i>Talaromyces radicus</i> FKI-3765-2	2010	Chem. Pharm. Bull.	58	829–832
79.	6-epi-5'-Hydroxy-mycosporulone	<i>Puruconiothyrium sporulosum</i> FO-5050	1999	J. Antibiot.	52	501–504
80.	Hymeglusin (1233A)	<i>Scopulariopsis candida</i> F-244	1987	J. Antibiot.	40	1356–1357
81.	Hynapene A	<i>Penicillium</i> sp. FO-1611	1993	J. Antibiot.	46	1849–1853
82.	Iminimycin A	<i>Streptomyces griseus</i> OS-3601	2016	J. Antibiot.	69	611–615
83.	Irumamycin	<i>Streptomyces subflavus</i> subsp. <i>irumaensis</i> AM-3603 ^T	1982	J. Antibiot.	35	256–257
84.	Isobisvertinol	<i>Aspergillus clavatoranicus</i> FKI-1746	2007	Org. Lett.	9	425–428
85.	Isochromophilone I	<i>Penicillium</i> sp. FO-2338, FO-3216 and FO-4164	1993	J. Antibiot.	46	1908–1911
86.	Jietacin A	<i>Streptomyces</i> sp. KP-197	1987	J. Antibiot.	40	623–629
87.	Jogyamycin	<i>Streptomyces</i> sp. a-WM-JG-16.2	2012	J. Antibiot.	65	169–172
88.	K10-0216 KA	<i>Lechevalieria aerocolonigenes</i> K10-0216	2014	J. Antibiot.	67	533–539
89.	K97-0239A	<i>Streptomyces</i> sp. K97-0239	2002	Proc. Jpn. Acad. Ser. B	78	45–50
90.	Kinamycin A	<i>Streptomyces murayamaensis</i> KA-295	1971	J. Antibiot.	24	353–359
91.	Kurasoin A	<i>Paecilomyces</i> sp. FO-3684	1996	J. Antibiot.	49	932–934
92.	LA-1	<i>Streptomyces kitasatoensis</i> KA-6	1976	Chem. Pharm. Bull.	24	3139–3143
93.	Lactacystin	<i>Streptomyces lactacystinicus</i> OM-6519 ^T	1991	J. Antibiot.	44	113–116
94.	Lanopylin A ₁	<i>Streptomyces</i> sp. K99-5041	2003	J. Antibiot.	56	817–826
95.	Lariatian A	<i>Rhodococcus jostii</i> K01-B0171	2007	J. Antibiot.	60	357–363
96.	Leucomycin A ₃	<i>Streptomyces kitasatoensis</i> KA-6 ^T	1966	Antimicrob. Agents Chemother.		631–636
97.	Louisianin A	<i>Streptomyces</i> sp. WK-4028	1995	J. Antibiot.	48	1086–1089
98.	Luminamicin	<i>Streptomyces</i> sp. OMR-59	1985	J. Antibiot.	38	1322–1326
99.	Lustrumycin	<i>Streptomyces</i> sp. SK-1071	1986	J. Antibiot.	39	1205–1210
100.	Macrosphelide A	<i>Paraconiothyrium sporulosum</i> FO-5050	1995	J. Antibiot.	48	1435–1439
101.	Madinoline A	<i>Streptomyces nitrosporeus</i> K93-0711	1996	J. Antibiot.	49	1091–1095
102.	Malolactomycin C	<i>Streptomyces</i> sp. KP-3144	1997	J. Antibiot.	50	194–200
103.	Mangromicin A	<i>Lechevalieria aerocolonigenes</i> K10-0216	2014	J. Antibiot.	67	253–260
104.	Miyakamide A ₁	<i>Aspergillus flavus</i> Link var. <i>columnaris</i> FKI-0739	2002	J. Antibiot.	55	952–961
105.	Monorden C	<i>Humicola grisea</i> FO-2942	2003	J. Antibiot.	56	526–532
106.	NA-337A	<i>Streptomyces</i> sp. NA-337	1974	Chem. Pharm. Bull.	22	2916–2920
107.	Nafuredin	<i>Aspergillus niger</i> FT-0554	2001	Proc. Natl. Acad. Sci. USA	98	60–62
108.	Nanaomycin A	<i>Streptomyces rosa</i> subsp. <i>notoensis</i> OS-3996 ^T	1974	J. Antibiot.	27	363–365
109.	Naphthacemycin A ₁	<i>Streptomyces</i> sp. KB-3346-5	2017	J. Antibiot.	70	in press
110.	Neoxaline	<i>Aspergillus japonicus</i> Fg-551	1979	J. Antibiot.	32	781–785
111.	10-Norparvulenone	<i>Microsphaeropsis</i> sp. FO-5050	2000	J. Antibiot.	53	1215–1218
112.	Nosokomycin A	<i>Streptomyces</i> sp. K04-0144	2010	J. Antibiot.	63	151–155
113.	Octacyclomycin	<i>Streptomyces</i> sp. 82-85	1992	J. Antibiot.	45	1686–1691
114.	Okicenone	<i>Streptomyces</i> sp. KO-3599	1991	J. Antibiot.	44	814–818
115.	Oligomycin G	<i>Streptomyces</i> sp. WK-6150	2001	J. Antibiot.	54	308–313
116.	OM-173 αA	<i>Streptomyces</i> sp. OM-173	1983	J. Antibiot.	36	1268–1274
117.	Oxetin	<i>Streptomyces</i> sp. OM-2317	1984	J. Antibiot.	37	1324–1332
118.	Paecilaminol	<i>Paecilomyces</i> sp. FKI-0550	2006	J. Antibiot.	59	591–596
119.	Panosialin D	<i>Streptomyces pseudoverticillius</i> OH-5186	1995	J. Antibiot.	48	205–210
120.	Panowamycin A	<i>Streptomyces</i> sp. NFAT-133	2012	J. Antibiot.	65	197–202
121.	Paraphaesphaeride D	<i>Paraphaesphaeria</i> sp. TR-022	2016	J. Antibiot.	69	605–610
122.	Pentacecillide A	<i>Talaromyces cecidicola</i> FKI-3765-1	2009	J. Antibiot.	62	207–211
123.	Pentenocin A	<i>Trichoderma hamatum</i> FO-6903	1999	J. Antibiot.	52	754–757
124.	Peptidinamin E	<i>Streptomyces</i> sp. OH-4652	1993	J. Antibiot.	46	222–228
125.	Phenatic acid A	<i>Streptomyces</i> sp. K03-0132	2005	J. Antibiot.	58	252–259
126.	Phenazinomycin	<i>Streptomyces</i> sp. WK-2057	1989	J. Antibiot.	42	1037–1042
127.	Phenochalasin A	<i>Phomopsis</i> sp. FT-0211	1999	J. Antibiot.	52	851–856
128.	Phenopyrrozin	<i>Penicillium</i> sp. FO-2047	1995	J. Antibiot.	48	1413–1418
129.	Phosalacine	<i>Kitasatospora phosalacinea</i> KA-338 ^T	1984	J. Antibiot.	37	829–835
130.	Phthoramycin	<i>Streptomyces</i> sp. WK-1875	1988	J. Antibiot.	41	1910–1912
131.	Phthoxazololn A	<i>Streptomyces</i> sp. OM-5714 and KO-7888	1990	J. Antibiot.	43	1034–1036

Table 1 (Continued)

No.	Compound	Producing strain	Year	Journal title	Volume	
					no.	Page range
132.	Prumycin	<i>Streptomyces kagawaensis</i> F-1028 ^T	1971	J. Antibiot.	24	900–901
133.	Purpactin A	<i>Talaromyces purpurogenus</i> FO-608	1991	J. Antibiot.	44	136–143
134.	Pyrenocine I	<i>Paecilomyces</i> sp. FKI-3573	2010	J. Antibiot.	63	559–561
135.	Pyridindolol K1	<i>Streptomyces nitrosporeus</i> K93-0711	1997	J. Antibiot.	50	189–193
136.	Pyridicin	<i>Streptomyces griseoflavus</i> subsp. <i>pyrindicus</i> NA-15 ^T	1973	Chem. Pharm. Bull.	21	2048–2049
137.	Pyripropene A	<i>Aspergillus fumigatus</i> FO-1289	1993	J. Antibiot.	46	1168–1169
138.	Quinoline-2-methanol	<i>Kitasatoa griseophaeus</i> PO-1227 ^T	1976	J. Antibiot.	29	797–803
139.	Reductinomycin	<i>Streptomyces xanthochromogenus</i> AM-6201	1981	J. Antibiot.	34	1222–1223
140.	Roselipin 1A	<i>Gliocladium roseum</i> KF-1040	1999	J. Antibiot.	52	689–694
141.	Rugulosin B	<i>Talaromyces radicus</i> FKI-3765-2	2010	Org. Lett.	12	1572–1575
142.	Sagamilactam	<i>Actinomadura</i> sp. K13-0306	2016	J. Antibiot.	69	818–824
143.	Sartorypyrone D	<i>Neosartorya fischeri</i> FO-5897	2015	J. Antibiot.	68	403–405
144.	Secopenicillide C	<i>Talaromyces pinophilus</i> FKI-5653 and <i>Trichoderma harzianum</i> FKI-5655	2011	J. Antibiot.	64	769–774
145.	Sespendole	<i>Cordana terrestris</i> FKA-25	2006	J. Antibiot.	59	93–97
146.	Sesquicillin B	<i>Albophoma</i> sp. FKI-1778	2005	J. Antibiot.	58	397–404
147.	Setamycin	<i>Kitasatospora setae</i> KM-6054 ^T	1981	J. Antibiot.	34	1253–1256
148.	Setomimycin	<i>Streptomyces pseudovenezuelae</i> AM-2947	1978	J. Antibiot.	31	1091–1098
149.	Sinefungin VA	<i>Streptomyces</i> sp. K05-0175	2010	J. Antibiot.	63	673–679
150.	Spoxazomicin A	<i>Streptosporangium oxazolinicum</i> K07-0460 ^T	2011	J. Antibiot.	64	297–302
151.	Spylidone	<i>Phoma</i> sp. FKI-1840	2005	J. Antibiot.	58	338–345
152.	Staurosporine	<i>Saccharothrix aerocolonigenes</i> subsp. <i>staurosporeus</i> AM-2282 ^T	1977	J. Antibiot.	30	275–282
153.	Stemphone B	<i>Aspergillus</i> sp. FKI-2136	2005	J. Antibiot.	58	695–703
154.	Takanawaene A	<i>Streptomyces</i> sp. K99-5278	2003	J. Antibiot.	56	448–453
155.	Takaokamycin	<i>Streptomyces</i> sp. AC-1978	1984	J. Antibiot.	37	700–705
156.	Tensuic acid A	<i>Aspergillus niger</i> FKI-2342	2007	Chem. Pharm. Bull.	55	1338–1341
157.	Terpendole A	<i>Albophoma yamanashiensis</i> FO-2546	1995	J. Antibiot.	48	1–4
158.	Thiotetromycin	<i>Streptomyces</i> sp. OM-674	1983	J. Antibiot.	36	109–114
159.	TM-64	<i>Thermoactinomyces antibioticus</i> TM-64	1975	J. Antibiot.	28	609–610
160.	Trehangelin A	<i>Polymorphospora rubra</i> K07-0510	2013	J. Antibiot.	66	311–317
161.	Triacsin A	<i>Streptomyces</i> sp. SK-1894	1986	J. Antibiot.	39	1211–1218
162.	L-1 <i>H</i> -1,2,4-Triazole-3-alanine	<i>Streptomyces</i> sp. KM-10329	1985	J. Antibiot.	38	1110–1111
163.	Trichopolyn VI	<i>Trichoderma brevicompactum</i> FKI-6324	2015	J. Gen. Appl. Microbiol.	61	82–87
164.	Trichosporin B-VIIa	<i>Trichoderma polysporum</i> FKI-4452	2010	J. Antibiot.	63	331–333
165.	Trienomycin A	<i>Streptomyces</i> sp. 83-16	1987	J. Antibiot.	40	1768–1772
166.	4',7,8-Trihydroxyisoflavone	<i>Streptomyces</i> sp. OH-1049	1989	J. Antibiot.	42	1344–1349
167.	Ukulactone A	<i>Talaromyces allahabadensis</i> FKI-3389	2011	Tetrahedron	67	6582–6586
168.	Verticilide	<i>Acremonium variegatum</i> FKI-1033	2010	J. Antibiot.	63	77–82
169.	Verticipyrone	<i>Metapochonia rubescens</i> FKI-1083	2006	J. Antibiot.	59	785–790
170.	Vineomycin A ₁	<i>Streptomyces matensis</i> subsp. <i>vineus</i> OS-4742 ^T	1977	J. Antibiot.	30	908–916
171.	Virantmycin	<i>Streptomyces nitrosporeus</i> AM-2722	1980	J. Antibiot.	33	1395–1396
172.	Virgaricin A	<i>Virgaria boninensis</i> FKI-4860	2012	J. Antibiot.	65	139–141
173.	Viridomycin F	<i>Streptomyces</i> sp. K96-0188	1999	J. Antibiot.	52	61–64
174.	Virustomycin A	<i>Streptomyces</i> sp. AM-2604	1982	J. Antibiot.	35	1632–1637
175.	Viticolin A	<i>Penicillium viticola</i> FKI-4410	2011	J. Antibiot.	64	183–188
176.	Wickerol A	<i>Trichoderma atroviride</i> FKI-3737	2012	Tetrahedron	68	9267–9271
177.	X-14952B	<i>Streptomyces</i> sp. X-14952B	1985	J. Antibiot.	38	674–676
178.	Xanthoquinodin A1	<i>Humicola</i> sp. FO-888	1993	J. Antibiot.	46	749–755
179.	Xanthoradone A	<i>Talaromyces radicus</i> FKI-3765-2	2009	J. Antibiot.	62	431–434
180.	Yaequinolone A1	<i>Penicillium</i> sp. FKI-2140	2006	J. Antibiot.	59	646–651
181.	Zelkovamycin	<i>Streptomyces</i> sp. K96-0670	1999	J. Antibiot.	52	29–33

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