SUPPLEMENTARY MATERIAL

Fungal metabolites antagonists towards plant pests and human pathogens: structure-activity relationship studies

Marco Masi *, Paola Nocera, Pierluigi Reveglia, Alessio Cimmino and Antonio Evidente

Dipartimento di Scienze Chimiche, Università di Napoli Federico II, Complesso Universitario monte Sant'Angelo, Via Cintia 4, 80126 Napoli, Italy; pierlugi.reveglia@unina.it; paola.nocera@unina.it; alessio.cimmino@unina.it; evidente@unina.it

* Correspondence: marco.masi@unina.it; Tel.: +39-081-253-2126

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Table S1. Fungal metabolites, their hemisynthetic derivatives and biological activities.

Name and Number	Class of Natural Compounds	Systematic Name	Source	Activity	Ref.
Sphaeropsidins A (**1**)	pimarane diterpene	(2*R*,4a*R*,4b*R*,8a*S*,9*S*)-4a,9-dihydroxy-2,8,8-trimethyl-2-vinyl-4,4a,5,6,7,8,8a,9-octahydro-2*H*-9,4b-(epoxymethano)phenanthrene-10,12(3*H*)-dione	*Diplodia* spp.	antimycotic; anticancer; antibacterial; insecticidal	[38,39,41-44, 63,78]
Sphaeropsidins B (**2**)	pimarane diterpene	(2*R*,4a*R*,4b*R*,8a*S*,9*S*,10*R*)-4a,9,10-trihydroxy-2,8,8-trimethyl-2-vinyl-3,4,4a,5,6,7,8,8a,9,10-decahydro-2*H*-9,4b-(epoxymethano)phenanthren-12-one	*Diplodia cupressi*	antimycotic; phytotoxic; insecticidal	[44,78]
Sphaeropsidins C (**3**)	pimarane diterpene	(4a*R*,4b*R*,7*R*,10a*S*)-4b-hydroxy-1,1,7-trimethyl-9-oxo-7-vinyl-1,2,3,4,4a,4b,5,6,7,9,10,10a-dodecahydrophenanthrene-4a-carboxylic acid	*D. cupressi*	antimycotic; phytotoxic	[44]
Sphaeropsidins D (**4**)	pimarane diterpene	(2*R*,4*R*,4a*R*,4b*R*,8a*S*,9*S*)-4,4a,9-trihydroxy-2,8,8-trimethyl-2-vinyl-4,4a,5,6,7,8,8a,9-octahydro-2H-9,4b-(epoxymethano)phenanthrene-10,12(3H)-dione	*D. cupressi*	Phytotoxic	[44]
Sphaeropsidins E (**5**)	pimarane diterpene	(4*R*,4a*R*,4b*R*,7*R*,9*S*,10*R*,10a*S*)-1,1,4a,7-tetramethyl-7-vinyl-1,2,3,4,4a,4b,5,6,7,9,10,10a-dodecahydrophenanthrene-4,4b,9,10-tetraol	*D. cupressi*		[44]
Sphaeropsidins F (**6**)	pimarane diterpene	(1*S*,2*R*,4*S*,4b*S*,8a*S*,10*R*)-1,2,4b,8,8-pentamethyl-2-vinyl-1,2,3,4,4b,5,6,7,8,8a,9,10-dodecahydrophenanthrene-4,10-diol	*D. cupressi*		[44]
Sphaeropsidone (**7**)	cyclohexanone	(1*S*,5*R*,6*S*)-5-hydroxy-4-methoxy-7-oxabicyclo[4.1.0]hept-3-en-2-one	*D. cupressi*	antioomycetes; phytotoxic	[45,100]
epi-Sphaeropsidone (**8**)	cyclohexanone	(1*S*,5*S*,6*S*)-5-hydroxy-4-methoxy-7-oxabicyclo[4.1.0]hept-3-en-2-one	*D. cupressi* *Diplodia africana*	antioomycetes; phytotoxic	[45,100]
Compound (**9**)	cyclohexanone	(4*S*,6*S*)-6-chloro-4,5-dihydroxy-3-methoxycyclohex-2-enone	*D. cupressi*		[45,100]
Compound (**10**)	cyclohexanone	(4*S*,6*R*)-6-chloro-4,5-dihydroxy-3-methoxycyclohex-2-enone	*D. cupressi*		[45,100]
Compound (**11**)	pimarane diterpene	(2*R*,4a*R*,4b*R*,8a*S*,9*S*)-4a-hydroxy-2,8,8-trimethyl-10,12-dioxo-2-vinyl-3,4,4a,5,6,7,8,8a,9,10-decahydro-2*H*-9,4b-(epoxymethano)phenanthren-9-yl acetate	hemisynthesized from **1** for SAR studies	phytotoxic; antimycotic	[44,63,78]
Compound (**12**)	pimarane diterpene	(2*R*,4b*R*,8a*S*,9*S*)-2,8,8-trimethyl-10,12-dioxo-2-vinyl-2,3,4,5,6,7,8,8a,9,10-decahydro-1*H*-9,4b-(epoxymethano)phenanthrene-1,9-diyl diacetate	hemisynthesized from **1** for SAR studies		[44,63]
Compound (**13**)	pimarane diterpene	(2*S*,4a*R*,4b*R*,8a*S*,9*S*)-2-ethyl-4a,9-dihydroxy-2,8,8-trimethyl-4,4a,5,6,7,8,8a,9-octahydro-2*H*-9,4b-(epoxymethano)phenanthrene-10,12(3*H*)-dione	hemisynthesized from **1** for SAR studies		[44,63]
Compound (**14**)	pimarane diterpene	(3*R*,3a*S*,4a*R*,6a*S*,10a*R*,10b*R*)-methyl 10b-hydroxy-3,7,7-trimethyl-5,6-dioxo-3-vinyltetradecahydrocyclopropa[j]phenanthrene-10a-	hemisynthesized from **1** for SAR studies		[44,63,78]

		carboxylate			
Compound (**15**)	pimarane diterpene	(1*R*,3a'*S*,4*R*,7a'*R*)-2-formyl-4,4',4'-trimethyl-3'-oxo-4-vinyl-3a',4',5',6',7',7a'-hexahydro-3'*H*-spiro[cyclohex[2]ene-1,1'-isobenzofuran]-7a'-carboxylic acid	hemisynthesized from **2** for SAR studies		[44,63]
Compound (**16**)	pimarane diterpene	(4a*R*,4b*R*,7*R*,9*S*,10a*S*)-4b,9-dihydroxy-1,1,7-trimethyl-7-vinyl-1,2,3,4,4a,4b,5,6,7,9,10,10a-dodecahydrophenanthrene-4a-carboxylic acid	hemisynthesized from **3** for SAR studies		[44,63]
Compound (**17**)	pimarane diterpene	(3*R*,3a*S*,4a*R*,6a*S*,10a*R*,10b*R*)-methyl 10b-hydroxy-3,7,7-trimethyl-5-oxo-3-vinyltetradecahydrocyclopropa[j]phenanthrene-10a-carboxylate	hemisynthesized from **3** for SAR studies		[44,63]
Compound (**18**)	pimarane diterpene	(4a*R*,4b*R*,7*R*,10a*S*)-methyl 4b-hydroxy-1,1,7-trimethyl-9-oxo-7-vinyl-1,2,3,4,4a,4b,5,6,7,9,10,10a-dodecahydrophenanthrene-4a-carboxylate	hemisynthesized from **3** for SAR studies		[44,63]
Compound (**19**)	cyclohexanone	(1*S*,2*R*,6*S*)-3-methoxy-5-oxo-7-oxabicyclo[4.1.0]hept-3-en-2-yl acetate	hemisynthesized from **7** for SAR studies		[45,100]
Compound (**20**)	aromatic compound	5-methoxybenzene-1,2,4-triyl triacetate	hemisynthesized from **7** for SAR studies		[45,100]
Compound (**21**)	cyclohexandione	(1*R*,6*S*)-3-methoxy-7-oxabicyclo[4.1.0]hept-3-ene-2,5-dione	hemisynthesized from **7** for SAR studies	antioomycetes	[45,100]
Compound (**22**)	cyclohexanone	(4*R*,5*S*,6*R*)-6-bromo-4,5-dihydroxy-3-methoxycyclohex-2-enone	hemisynthesized from **7** for SAR studies		[45,100]
Compound (**23**)	cyclohexandiol	(1*S*,2*R*,5*R*,6*R*)-3-methoxy-7-oxabicyclo[4.1.0]hept-3-ene-2,5-diol	hemisynthesized from **7** for SAR studies		[45,100]
Compound (**24**)	cyclohexanone	(2*S*,4*R*,5*S*)-2,4-dihydroxy-5-methoxycyclohexanone	hemisynthesized from **7** for SAR studies		[45,100]
Compound (**25**)	cyclohexanone	(1*S*,2*S*,6*S*)-3-methoxy-5-oxo-7-oxabicyclo[4.1.0]hept-3-en-2-yl acetate	hemisynthesized from **8** for SAR studies	antioomycetes	[45,100]
Compound (**26**)	cyclohexanone	(1*R*,2*S*,3*S*)-4-methoxy-6-oxocyclohex-4-ene-1,2,3-triyl triacetate	hemisynthesized from **8** for SAR studies		[45,100]
Afritoxinone A (**27**)	pyranone	(3a*S*,6*R*,7a*S*)-6-methoxy-3,3a,6,7a-tetrahydro-2*H*-furo[2,3-b]pyran-2-one	*D. africana*	phytotoxic	[34]
Afritoxinone B (**28**)	pyranone	(3a*R*,6*R*,7a*S*)-6-methoxy-3,3a,6,7a-tetrahydro-2*H*-furo[2,3-b]pyran-2-one	*D. africana*	phytotoxic	[34]
Oxysporone (**29**)	pyranone	(3a*R*,4*S*,7a*R*)-4-hydroxy-3,3a,4,7a-tetrahydro-2*H*-furo[2,3-b]pyran-2-one	*D. africana*	phytotoxic; antioomycetes; antifungal	[34, 46]
R-(-)-Mellein (**30**)	isocoumarin	(*R*)-8-hydroxy-3-methylisochroman-1-one	*D. africana*	phytotoxicity	[34]
(3*R*,4*R*)-4-Hydroxymellein (**31**)	isocoumarin	(3*R*,4*R*)-4,8-dihydroxy-3-methylisochroman-1-one	*D. africana*	phytotoxicity	[34]
(3*R*,4*S*)-4-Hydroxymellein (**32**)	isocoumarin	(3*R*,4*S*)-4,8-dihydroxy-3-methylisochroman-1-one	*D. africana*	phytotoxicity	[34]
Compund (**33**)	pyranone	(3a*R*,4*S*,7a*R*)-2-oxo-3,3a,4,7a-tetrahydro-2*H*-furo[2,3-	hemisynthesized from		[46]

		b]pyran-4-yl acetate	**29** for SAR studies		
Compound (**34**)	pyranone	(3a*R*,4*S*,7a*R*)-2-oxohexahydro-2H-furo[2,3-b]pyran-4-yl acetate	hemisynthesized from **29** for SAR studies		[46]
Compound (**35**)	pyranone	(3a*R*,4*S*)-2-oxo-3,3a,4,7a-tetrahydro-2*H*-furo[2,3-b]pyran-4-yl 4-bromobenzoate	hemisynthesized from **29** for SAR studies	antioomycetes; antifungal	[46]
Compound (**36**)	pyranone	(3a*S*,7a*R*)-3,3a-dihydro-2*H*-furo[2,3-b]pyran-2,4(7a*H*)-dione	hemisynthesized from **29** for SAR studies		[46]
Compound (**37**)	pyranone	(3a*R*,4*S*,7a*R*)-4-hydroxyhexahydro-2*H*-furo[2,3-b]pyran-2-one	hemisynthesized from **29** for SAR studies		[46]
Compound (**38**)	pyrane	(S)-2-(4-hydroxy-3,4-dihydro-2*H*-pyran-5-yl)acetic acid	hemisynthesized from **29** for SAR studies		[46]
Compound (**39**)	pyrane	(*S*)-2-(4-hydroxy-4*H*-pyran-3-yl)acetic acid	hemisynthesized from **29** for SAR studies		[46]
Compound (**40**)	pyrane	(*S*)-methyl 2-(4-hydroxy-4*H*-pyran-3-yl)acetate	hemisynthesized from **29** for SAR studies		[46]
Ascochalasin (**41**)	cytochalasan	(3*S*,4*S*,6*S*,10*R*,14*R*,17a*R*)-3-benzyl-6,14-dihydroxy-4,10-dimethyl-5-methylene-3,3a,4,5,6,6a,9,10,11,12,13,14,15,16-tetradecahydro-1*H*-cyclotrideca[d]isoindole-1,17(2*H*)-dione	*Ascochyta heteromorpha*		[51]
Deoxaphomin (**42**)	cytochalasan	(3*S*,4*S*,6*S*,7*E*,10*R*,14*R*,15*E*,17a*R*)-3-benzyl-6-hydroxy-4,10,14-trimethyl-5-methylene-3,3a,4,5,6,6a,9,10,11,12,13,14-dodecahydro-1*H*-cyclotrideca[d]isoindole-1,17(2*H*)-dione	*A. heteromorpha*		[51]
Cytochalasins A (**43**)	cytochalasan	(3*S*,4*S*,6*S*,7E,10*R*,15*E*,18a*S*)-3-benzyl-6-hydroxy-4,10-dimethyl-5-methylene-3,3a,4,5,6,6a,10,11,12,13-decahydro-1*H*-[1]oxacyclotetradecino[2,3-*d*]isoindole-1,14,17(2*H*,9*H*)-trione	*A. heteromorpha*	antifungal, antibacterial	[51]
Cytochalasins B (**44**)	cytochalasan	(3*S*,4*S*,6*S*,7*E*,10*R*,14*R*,15*E*,18a*S*)-3-benzyl-6,14-dihydroxy-4,10-dimethyl-5-methylene-3,3a,4,5,6,6a,9,10,11,12,13,14-dodecahydro-1*H*-[1]oxacyclotetradecino[2,3-d]isoindole-1,17(2*H*)-dione	*A. heteromorpha*		[51]
Compound (**45**)	cytochalasan	(3*S*,4*S*,6*S*,7*E*,10*R*,14*R*,15*E*,18a*S*)-3-benzyl-4,10-dimethyl-5-methylene-1,17-dioxo-2,3,3a,4,5,6,6a,9,10,11,12,13,14,17-tetradecahydro-1*H*-[1]oxacyclotetradecino[2,3-d]isoindole-6,14-diyl diacetate	hemisynthesized from **44** for SAR studies		[51]
Compound (**46**)	cytochalasan	(3*S*,4*S*,6*S*,10*R*,14*R*,18a*S*)-3-benzyl-6,14-dihydroxy-4,10-dimethyl-5-methylene-3,3a,4,5,6,6a,9,10,11,12,13,14,15,16-tetradecahydro-1*H*-[1]oxacyclotetradecino[2,3-d]isoindole-1,17(2*H*)-dione	hemisynthesized from **44** for SAR studies		[51]

Compound (**47**)	cytochalasan	(3*S*,4*S*,6*S*,7*E*,10*R*,15*E*,18a*S*)-3-benzyl-4,10-dimethyl-5-methylene-1,14,17-trioxo-2,3,3a,4,5,6,6a,9,10,11,12,13,14,17-tetradecahydro-1*H*-[1]oxacyclotetradecino[2,3-d]isoindol-6-yl acetate	hemisynthesized from **43** for SAR studies	antibacterial	[51]
Cytochalasins C (**48**)	cytochalasan	(3*S*,6*S*,7*E*,10*S*,12*R*,13*E*,15*R*)-3-benzyl-6,12-dihydroxy-4,5,10,12-tetramethyl-1,11-dioxo-2,3,3a,6,6a,9,10,11,12,15-decahydro-1*H*-cycloundeca[d]isoindol-15-yl acetate	*A. heteromorpha*		[51]
Cytochalasins D (**49**)	cytochalasan	(3*S*,6*S*,7*E*,10*S*,12*R*,13*E*,15*R*)-3-benzyl-6,12-dihydroxy-4,5,10,12-tetramethyl-1,11-dioxo-2,3,3a,6,6a,9,10,11,12,15-decahydro-1*H*-cycloundeca[d]isoindol-15-yl acetate	*A. heteromorpha*		[51]
Cytochalasins E (**50**)	cytochalasan	(1*E*,4*S*,6*R*,7*E*,11a*S*,14*S*,15*S*,15a*R*,16a*S*)-14-benzyl-6-hydroxy-4,6,15,15a-tetramethyl-3,4,14,14a,15,15a,16a,16b-octahydro-[1,3]dioxacyclotridecino[4,5-d]oxireno[2,3-f]isoindole-5,10,12(6*H*,13*H*)-trione	*A. heteromorpha*		[51]
Cytochalasins H (**51**)	cytochalasan	(3*S*,6*S*,7*E*,10*S*,12*R*,13*E*,15*R*)-3-benzyl-6,12-dihydroxy-4,5,10,12-tetramethyl-1-oxo-2,3,3a,6,6a,9,10,11,12,15-decahydro-1*H*-cycloundeca[d]isoindol-15-yl acetate	*A. heteromorpha*		[51]
Cytochalasins J (**52**)	cytochalasan	(3*S*,6*S*,7*E*,10*S*,12*R*,13*E*,15*R*)-3-benzyl-6,12,15-trihydroxy-4,5,10,12-tetramethyl-2,3,3a,6,6a,9,10,11,12,15-decahydro-1*H*-cycloundeca[d]isoindol-1-one	*A. heteromorpha*		[51]
12β-Hydroxy-13α-methoxyverruculogen TR-2 (**53**)	indole diketopiperazine alkaloid	(5a*S*,6*S*,12*S*,14a*S*)-5a-hydroxy-12-(3-hydroxy-3-methylbutyl)-6,9-dimethoxy-1,2,3,5a,6,14a-hexahydropyrrolo[1'',2'':4',5']pyrazino[1',2':1,6]pyrido[3,4-b]indole-5,14(11*H*,12*H*)-dione	*Aspergillus fumigatus* LN-4		[52]
3-Hydroxyfumiquinazoline A (**54**)	fumiquinazoline	(1*R*,4*R*)-1-hydroxy-4-(((2*S*,9*S*,9a*S*)-9-hydroxy-2-methyl-3-oxo-2,3,9,9a-tetrahydro-1*H*-imidazo[1,2-a]indol-9-yl)methyl)-1-methyl-1*H*-pyrazino[2,1-b]quinazoline-3,6(2*H*,4*H*)-dione	*A. fumigatus* LN-4		[52]
Fumitremorgin C (**55**)	indole diketopiperazine alkaloid	(5a*R*,6*S*,12*S*,14a*S*)-5a,6-dihydroxy-9-methoxy-12-(3-methylbut-2-en-1-yl)-1,2,3,5a,6,14a-hexahydropyrrolo[1'',2'':4',5']pyrazino[1',2':1,6]pyrido[3,4-b]indole-5,14(11*H*,12*H*)-dione	*A. fumigatus* LN-4		[52]
Cyclotryprostatins A (**56**)	indole diketopiperazine alkaloid	(5a*S*,6*S*,12*S*,14a*S*)-5a,6-dihydroxy-9-methoxy-12-(3-methylbut-2-en-1-yl)-1,2,3,5a,6,14a-hexahydropyrrolo[1'',2'':4',5']pyrazino[1',2':1,6]pyrido[3,4-b]indole-5,14(11*H*,12*H*)-dione	*A. fumigatus* LN-4		[52]
Cyclotryprostatins B (**57**)	indole diketopiperazine alkaloid	(5a*S*,6*S*,12*S*,14a*S*)-5a-hydroxy-6,9-dimethoxy-12-(3-methylbut-2-en-1-yl)-1,2,3,5a,6,14a-	*A. fumigatus* LN-4		[52]

		hexahydropyrrolo[1'',2'':4',5']pyrazino[1',2':1,6]pyrido[3,4-b]indole-5,14(11*H*,12*H*)-dione			
Verruculogen TR-2 (**58**)	indole diketopiperazine alkaloid	(5a*R*,6*S*,12*S*,14a*S*)-5a,6-dihydroxy-12-(3-hydroxy-3-methylbutyl)-9-methoxy-1,2,3,5a,6,14a-hexahydropyrrolo[1'',2'':4',5']pyrazino[1',2':1,6]pyrido[3,4-b]indole-5,14(11*H*,12*H*)-dione	*A. fumigatus* LN-4		[64]
12β-Hydroxyverruculogen TR-2 (**59**)	indole diketopiperazine alkaloid	(5a*S*,6*S*,12*S*,14a*S*)-5a,6-dihydroxy-12-(3-hydroxy-3-methylbutyl)-9-methoxy-1,2,3,5a,6,14a-hexahydropyrrolo[1'',2'':4',5']pyrazino[1',2':1,6]pyrido[3,4-b]indole-5,14(11*H*,12*H*)-dione	*A. fumigatus* LN-4		[64]
Fumitremorgin B (**60**)	indole diketopiperazine alkaloid	(5a*R*,6*S*,12*S*,14a*S*)-5a,6-dihydroxy-9-methoxy-11-(3-methylbut-2-en-1-yl)-12-(2-methylprop-1-en-1-yl)-1,2,3,5a,6,14a-hexahydropyrrolo[1'',2'':4',5']pyrazino[1',2':1,6]pyrido[3,4-b]indole-5,14(11*H*,12*H*)-dione	*A. fumigatus* LN-4		[64]
Verruculogen (**61**)	indole diketopiperazine alkaloid	(5*R*,10*S*,10a*R*,14a*S*,15b*S*)-10,10a-dihydroxy-7-methoxy-2,2-dimethyl-5-(2-methylprop-1-en-1-yl)-1,10,10a,12,13,14,14a,15b-octahydro-3,4-dioxa-5a,11a,15a-triazacycloocta[lm]indeno[5,6-b]fluorene-11,15(2*H*,5*H*)-dione	*A. fumigatus* LN-4		[64]
Fumiquinazoline F (**62**)	fumiquinazoline	(1*R*,4*R*)-4-((1*H*-indol-2-yl)methyl)-1-methyl-1H-pyrazino[2,1-b]quinazoline-3,6(2*H*,4*H*)-dione	*A. fumigatus* LN-4		[64]
Fumiquinazoline G (**63**)	fumiquinazoline	(1*S*,4*R*)-4-((1*H*-indol-2-yl)methyl)-1-methyl-1*H*-pyrazino[2,1-b]quinazoline-3,6(2*H*,4*H*)-dione	*A. fumigatus* LN-4		[64]
Fumiquinazoline D (**64**)	fumiquinazoline	(1*S*,2a,1*S*,6b*S*,8*R*,15*R*)-6b-hydroxy-1,15-dimethyl-6b,7,8,15-tetrahydro-2a,8a,14,15a,16-pentaaza-8,15-ethanobenzo[4',5']pentaleno[1',6':4,5,6]cycloocta[1,2-b]naphthalene-2,9,17(1*H*,2a1*H*)-trione	*A. fumigatus* LN-4		[64]
Fumiquinazoline A (**65**)	fumiquinazoline	(1*S*,4*R*)-4-(((2*S*,9*S*,9a*S*)-9-hydroxy-2-methyl-3-oxo-2,3,9,9a-tetrahydro-1H-imidazo[1,2-a]indol-9-yl)methyl)-1-methyl-1H-pyrazino[2,1-b]quinazoline-3,6(2*H*,4*H*)-dione	*A. fumigatus* LN-4		[64]
Fusapyrone (**66**)	substituted pyrone	3-((2*R*,3*R*,4*R*,6*R*)-3,4-dihydroxy-6-(hydroxymethyl)tetrahydro-2H-pyran-2-yl)-4-hydroxy-6-((4*E*,6*E*,9*Z*)-3-hydroxy-8-(hydroxymethyl)-2,6,10,12-tetramethyloctadeca-4,6,9-trien-2-yl)-2*H*-pyran-2-one	*Fusarium semitectum*	antifungal	[53, 54]
Deoxyfusapyrone (**67**)	substituted pyrone	3-((2S,6S)-6-methyltetrahydro-2*H*-pyran-2-yl)-6-((4*E*,6*E*,9*Z*)-2,6,8,10,12-pentamethyloctadeca-4,6,9-trien-2-yl)-2*H*-pyran-2-one	hemisynthesized from **66** for SAR studies	high zootoxicity	[53, 54]
Compound (**68**)	substituted pyrone	(*Z*)-2-((1*E*,3*E*)-5-acetyl-6-(4-acetyl-3-((2*S*,4*R*,6*R*)-4-acetyl-6-(2-oxopropyl)tetrahydro-2*H*-pyran-2-yl)-2-	hemisynthesized from **66** for SAR studies		[55]

		oxo-2*H*-pyran-6-yl)-2,6-dimethylhepta-1,3-dien-1-yl)-4,6-dimethyldodec-3-en-1-yl acetate			
Compound (**69**)	substituted pyrone	4-acetyl-6-((4*E*,6*E*,9*Z*)-3-acetyl-2,6,8,10,12-pentamethyloctadeca-4,6,9-trien-2-yl)-3-((2*S*,4*R*,6*R*)-4-acetyl-6-(2-oxopropyl)tetrahydro-2H-pyran-2-yl)-2*H*-pyran-2-one	hemisynthesized from **67** for SAR studies		[55]
Compound (**70**)	substituted pyrone	(4*E*,6*E*)-3-(2-(4-acetyl-3-((2S,4*R*,6*S*)-4-acetyl-6-ethyltetrahydro-2*H*-pyran-2-yl)-2-oxo-2*H*-pyran-6-yl)propan-2-yl)-8-((*Z*)-2,4-dimethyldec-1-en-1-yl)-6-methylundeca-4,6-diene-2,10-dione	hemisynthesized from **66** for SAR studies		[55]
Compound (**71**)	substituted pyrone	(2*R*,3*R*,4*R*,6*R*)-2-(6-((4*E*,6*E*,9*Z*)-3-acetoxy-8-(acetoxymethyl)-2,6,10,12-tetramethyloctadeca-4,6,9-trien-2-yl)-2-methoxy-4-oxo-4*H*-pyran-3-yl)-6-(acetoxymethyl)tetrahydro-2*H*-pyran-3,4-diyl diacetate	hemisynthesized from **66** for SAR studies		[55]
Compound (**72**)	substituted pyrone	3-((2*S*,6*S*)-6-ethyltetrahydro-2*H*-pyran-2-yl)-4-hydroxy-6-((4*E*,6*E*,9*Z*)-8-(hydroxymethyl)-2,6,10,12-tetramethyloctadeca-4,6,9-trien-2-yl)-2*H*-pyran-2-one	hemisynthesized from **66** for SAR studies	weak activity against *B. cinerea*	[55]
Compound (**73**)	substituted pyrone	4-hydroxy-6-((4*E*,6*E*,9*Z*)-3-hydroxy-8-(hydroxymethyl)-2,6,10,12-tetramethyloctadeca-4,6,9-trien-2-yl)-3-(2-hydroxyethyl)-2*H*-pyran-2-one	hemisynthesized from **66** for SAR studies		[55]
Compound (**74**)	substituted pyrone	3-((2*R*,3*R*,4*R*,6*R*)-3,4-dihydroxy-6-(hydroxymethyl)tetrahydro-2H-pyran-2-yl)-4-hydroxy-6-((*Z*)-3-hydroxy-8-(hydroxymethyl)-2,6,10,12-tetramethyloctadec-9-en-2-yl)-2*H*-pyran-2-one	hemisynthesized from **66** for SAR studies	weak activity against *B. cinerea*	[55]
Compound (**75**)	substituted pyrone	3-((2*R*,3*R*,4*R*,6*R*)-3,4-dihydroxy-6-(hydroxymethyl)tetrahydro-2H-pyran-2-yl)-4-hydroxy-6-(3-hydroxy-8-(hydroxymethyl)-2,6,10,12-tetramethyloctadecan-2-yl)-2*H*-pyran-2-one	hemisynthesized from **66** for SAR studies	weak activity against *B. cinerea*	[55]
6-*n*-Pentyl-2*H*-pyran-2-one (**76**)	substituted pyrone	6-pentyl-2*H*-pyran-2-one	*Trichoderma* spp.	antifungal	[55,56]
Viridepyronone (**77**)	substituted pyrone	6-(4-oxopentyl)-2*H*-pyran-2-one	*Trichoderma viride*	antifungal	[57]
Fusaproliferin (**78**)	macrocyclic compound	(*S*)-2-((3a*S*,5*E*,9*Z*,13*R*,14*E*,16a*R*)-2,13-dihydroxy-3a,6,10,14-tetramethyl-3-oxo-3,3a,4,7,8,11,12,13,16,16a-decahydrocyclopenta[15]annulen-1-yl)propyl acetate	*Cleistothelebolus nipigonensis* and *Neogymnomyces virgineus*	antifungal	[58]
Terpestacin (**79**)	macrocyclic compound	(3a*R*,5*E*,7*R*,10*Z*,14*E*,16a*S*)-2,7-dihydroxy-3-((*S*)-1-hydroxypropan-2-yl)-6,10,14,16a-tetramethyl-3a,4,8,9,12,13,16,16a-octahydrocyclopenta[15]annulen-1(7*H*)-one	*C. nipigonensis* and *N. virgineus*	antifungal	[59]
Compound (**80**)	macrocyclic compound	(3a*R*,5*E*,7*R*,10*Z*,14*E*,16a*S*)-3-((*S*)-1-acetoxypropan-2-	hemisynthesized from		[59]

		yl)-6,10,14,16a-tetramethyl-1-oxo-1,3a,4,7,8,9,12,13,16,16a-decahydrocyclopenta[15]annulene-2,7-diyl diacetate	**78** for SAR studies		
Compound (**81**)	macrocyclic compound	(*S*)-2-((3a*S*,5*E*,9*Z*,13*R*,14*E*,16a*R*)-13-hydroxy-2-methoxy-3a,6,10,14-tetramethyl-3-oxo-3,3a,4,7,8,11,12,13,16,16a-decahydrocyclopenta[15]annulen-1-yl)propyl acetate	hemisynthesized from **78** for SAR studies		[59]
Compound (**82**)	macrocyclic compound	(2*S*)-2-((3a*S*,13*R*,16a*R*)-2,13-dihydroxy-3a,6,10,14-tetramethyl-3-oxo-3,3a,4,5,6,7,8,9,10,11,12,13,14,15,16,16a-hexadecahydrocyclopenta[15]annulen-1-yl)propyl acetate	hemisynthesized from **78** for SAR studies		[59]
Compound (**83**)	macrocyclic compound	(*S*)-2-((3a*S*,5*E*,9*Z*,13*R*,14*E*,16a*R*)-2-((1-(4-bromophenoxy)vinyl)oxy)-13-hydroxy-3a,6,10,14-tetramethyl-3-oxo-3,3a,4,7,8,11,12,13,16,16a-decahydrocyclopenta[15]annulen-1-yl)propyl acetate	hemisynthesized from **78** for SAR studies		[59]
Compound (**84**)	macrocyclic compound	(3a*R*,5*E*,7*R*,10*Z*,14*E*,16a*S*)-7-hydroxy-3-((*S*)-1-hydroxypropan-2-yl)-2-methoxy-6,10,14,16a-tetramethyl-3a,4,8,9,12,13,16,16a-octahydrocyclopenta[15]annulen-1(7*H*)-one	hemisynthesized from **79** for SAR studies		[59]
Compound (**85**)	macrocyclic compound	(3a*R*,7*R*,16a*S*)-2,7-dihydroxy-3-((*S*)-1-hydroxypropan-2-yl)-6,10,14,16a-tetramethyl-4,5,6,7,8,9,10,11,12,13,14,15,16,16a-tetradecahydrocyclopenta[15]annulen-1(3a*H*)-one	hemisynthesized from **79** for SAR studies	antifungal	[59]
Compound (**86**)	macrocyclic compound	*Bis*-4-bromophenyl ((*S*)-2-((3a*S*,5*E*,9*Z*,13*R*,14*E*,16a*R*)-2,13-dihydroxy-3a,6,10,14-tetramethyl-3-oxo-3,3a,4,7,8,11,12,13,16,16a-decahydrocyclopenta[15]annulen-1-yl)propyl) carbonate	hemisynthesized from **79** for SAR studies		[59]
Compound (**87**)	macrocyclic compound	4-bromophenyl ((3a*R*,5*E*,7*R*,10*Z*,14*E*,16a*S*)-2-hydroxy-3-((*S*)-1-hydroxypropan-2-yl)-6,10,14,16a-tetramethyl-1-oxo-1,3a,4,7,8,9,12,13,16,16a-decahydrocyclopenta[15]annulen-7-yl) carbonate	hemisynthesized from **79** for SAR studies	antifungal	[59]
Compound (**88**)	pimarane diterpene	(4a'*R*,4b'*R*,7'*R*,10a'*S*)-methyl 4b'-hydroxy-1',1',7'-trimethyl-10'-oxo-7'-vinyl-2',3',4',4a',4b',5',6',7',10',10a'-decahydro-1'*H*-spiro[oxirane-2,9'-phenanthrene]-4a'-carboxylate	hemisynthesized from **1** for SAR studies		[63]
Compound (**89**)	pimarane diterpene	(4a'*R*,4b'*R*,7'*R*,10a'*S*)-methyl 4b'-methoxy-1',1',7'-trimethyl-10'-oxo-7'-vinyl-2',3',4',4a',4b',5',6',7',10',10a'-decahydro-1'*H*-spiro[oxirane-2,9'-phenanthrene]-4a'-carboxylate	hemisynthesized from **1** for SAR studies		[63]
Compound (**90**)	pimarane diterpene	(2*S*,4a*R*,4b*R*,8a*S*,9*S*,10*R*)-2-ethyl-4a,9,10-trihydroxy-	hemisynthesized from **1**		[63]

		2,8,8-trimethyl-3,4,4a,5,6,7,8,8a,9,10-decahydro-2*H*-9,4b-(epoxymethano)phenanthren-12-one	for SAR studies		
Compound (**91**)	pimarane diterpene	(2*S*,4a*R*,4b*R*,8a*S*,9*S*,10*R*)-2-ethyl-4a,9-dihydroxy-2,8,8-trimethyl-12-oxo-3,4,4a,5,6,7,8,8a,9,10-decahydro-2H-9,4b-(epoxymethano)phenanthren-10-yl acetate	hemisynthesized from **1** for SAR studies		[63]
Compound (**92**)	pimarane diterpene	(2*S*,4a*R*,4b*R*,8a*S*,9*S*,10*R*)-2-ethyl-4a,9-dihydroxy-2,8,8-trimethyl-12-oxo-3,4,4a,5,6,7,8,8a,9,10-decahydro-2*H*-9,4b-(epoxymethano)phenanthren-10-yl acetate	hemisynthesized from **2** for SAR studies		[63]
Compound (**93**)	pimarane diterpene	(4a*R*,4b*R*,7*R*,10a*S*)-methyl 4b-hydroxy-1,1,7,8-tetramethyl-9,10-dioxo-7-vinyl-1,2,3,4,4a,4b,5,6,7,9,10,10a-dodecahydrophenanthrene-4a-carboxylate	hemisynthesized from **1** for SAR studies		[63]
Compound (**94**)	pimarane diterpene	(1*R*,1'*R*,2*S*,4'*R*)-methyl 1'-hydroxy-2-(2-hydroxyacetyl)-2',3,3,4'-tetramethyl-4'-vinyl-[1,1'-bi(cyclohexan)]-2'-ene-1-carboxylate	hemisynthesized from **2** for SAR studies		[63]
Fischerindoline (**95**)	pyrroloindole sesquiterpenoid	(2*S*,3a*R*,8a*R*)-(1*S*,2*R*,4a*R*,5*R*,8*R*,8a*R*)-2-acetoxy-8a-hydroxy-3,8-dimethyl-5-(prop-1-en-2-yl)-1,2,4a,5,6,7,8,8a-octahydronaphthalen-1-yl 3a-hydroxy-8-methyl-1,2,3,3a,8,8a-hexahydropyrrolo[2,3-b]indole-2-carboxylate	*Neosartorya pseudofischeri*		[66,67]
Eurochevalierine (**96**)	octahydronaphthalen	(*S*)-(1*S*,2*R*,4a*R*,5*R*,8*R*,8a*R*)-2-acetoxy-8a-hydroxy-3,8-dimethyl-5-(prop-1-en-2-yl)-1,2,4a,5,6,7,8,8a-octahydronaphthalen-1-yl 2-formamido-4-(2-(methylamino)phenyl)-4-oxobutanoate	*N. pseudofischeri*		[66,67]
Neosartins A (**97**)	dihydropyrazino[1,2-a]indole	3-methoxy-2,3-dimethyl-2,3-dihydropyrazino[1,2-a]indole-1,4-dione	*N. pseudofischeri*		[65]
Neosartins B (**98**)	dihydropyrazino[1,2-a]indole	3,3-dimethoxy-2-methyl-2,3-dihydropyrazino[1,2-a]indole-1,4-dione	*N. pseudofischeri*		[65]
Neosartins C (**99**)	dihydropyrazino[1,2-a]indole	2,3-dimethyl-2,3-dihydropyrazino[1,2-a]indole-1,4-dione	*N. pseudofischeri*		[65]
1,2,3,4-Tetrahydro-2,3-dimethyl-1,4-dioxopyrazino[1,2-a]indole (**100**)	dihydropyrazino[1,2-a]indole	2-methyl-3-methylene-2,3-dihydropyrazino[1,2-a]indole-1,4-dione	*N. pseudofischeri*	antibacterial	[65]
1,2,3,4-Tetrahydro-2-methyl- 3-methylene-1,4-dioxopyrazino[1,2-a]indole (**101**)	dihydropyrazino[1,2-a]indole	2-methylpyrazino[1,2-a]indole-1,3,4(2H)-trione	*N. pseudofischeri*		[65]
1,2,3,4-Tetrahydro-2-methyl-1,3,4- trioxopyrazino [1,2-a]	dihydropyrazino[1,2-a]indole	1,2,3,4-tetrahydro-2-methyl-1,3,4- trioxopyrazino [1,2-a] indole	*N. pseudofischeri*		[65]

indole (**102**)					
N-Methyl-1*H*-indole-2-carboxamide (**103**)	indole	*N*-methyl-1*H*-indole-2-carboxamide	*N. pseudofischeri*		[65]
Gliotoxin (**104**)	epidithiopyrazino[1,2-a]indole	6-hydroxy-3-(hydroxymethyl)-2-methyl-2,3,5a,6-tetrahydro-1*H*-3,10a-epidithiopyrazino[1,2-a]indole-1,4(10*H*)-dione	*N. pseudofischeri*	antibacterial	[65]
Acetylgliotoxin (**105**)	epidithiopyrazino[1,2-a]indole	3-(hydroxymethyl)-2-methyl-1,4-dioxo-2,3,4,5a,6,10-hexahydro-1*H*-3,10a-epidithiopyrazino[1,2-a]indol-6-yl acetate	*N. pseudofischeri*	antibacterial	[65]
Reduced gliotoxin (**106**)	hexahydropyrazino[1,2-a]indole	6-hydroxy-3-(hydroxymethyl)-3,10a-dimercapto-2-methyl-2,3,5a,6,10,10a-hexahydropyrazino[1,2-a]indole-1,4-dione	*N. pseudofischeri*	antibacterial	[65]
6-Acetylbis(methylthio)gliotoxin (**107**)	octahydropyrazino[1,2-a]indol	3-(hydroxymethyl)-2-methyl-3,10a-bis(methylthio)-1,4-dioxo-1,2,3,4,5a,6,10,10a-octahydropyrazino[1,2-a]indol-6-yl acetate	*N. pseudofischeri*		[65]
Bisdethiobis(methylthio) gliotoxin (**108**)	octahydropyrazino[1,2-a]indol	3-(hydroxymethyl)-2-methyl-3,10a-bis(methylthio)-1,4-dioxo-1,2,3,4,5a,6,10,10a-octahydropyrazino[1,2-a]indol-6-yl acetate	*N. pseudofischeri*		[65]
Didehydrobisdethiobis(methylthio)gliotoxin (**109**)	tetrahydropyrazino[1,2-a]indole	3-(hydroxymethyl)-2-methyl-3,10a-bis(methylthio)-2,3,10,10a-tetrahydropyrazino[1,2-a]indole-1,4-dione	*N. pseudofischeri*		[65]
Bis-*N*-norgliovictin (**110**)	bis(methylthio)piperazine	3-benzyl-6-(hydroxymethyl)-1-methyl-3,6-bis(methylthio)piperazine-2,5-dione	*N. pseudofischeri*		[65]
Pyripyropene A (**111**)	dodecahydrobenzo[f]pyrano[4,3-b]chromene	(3*S*,4*R*,4a*R*,6*S*,6a*S*,12*R*,12a*S*,12b*S*)-4-(acetoxymethyl)-12-hydroxy-4,6a,12b-trimethyl-11-oxo-9-(pyridin-3-yl)-1,2,3,4,4a,5,6,6a,11,12,12a,12b-dodecahydrobenzo[f]pyrano[4,3-b]chromene-3,6-diyl diacetate	*N. pseudofischeri*		[65]
Boydines A (**112**)	epipolythiodioxopiperazine	(4*S*,4a*S*,6a*R*,11*S*,11a*S*,13a*R*)-4,11-dihydroxy-6a,13a-bis(methylthio)-4,4a,6a,7,11,11a,13a,14-octahydropyrazino[1,2-a:4,5-a']diindole-6,13-dione	*Pseudallescheria boydii*		[68]
Boydines B (**113**)	epipolythiodioxopiperazine	(2*S*,3*R*,4*S*,*E*)-(4*S*,4a*S*,6a*R*,11*S*,11a*S*,13a*R*)-11-hydroxy-6a,13a-bis(methylthio)-6,13-dioxo-4,4a,6,6a,7,11,11a,13,13a,14-decahydropyrazino[1,2-a:4,5-a']diindol-4-yl 3-hydroxy-2,4,6-trimethyl-5-oxooct-6-enoate	*P. boydii*	antibacterial	[68]
Boydines C (**114**)	epipolythiodioxopiperazine	(2*S*,3*R*,4*S*,*E*)-(5*S*,5a*S*,7a*R*,12*S*,12a*S*,14a*R*)-12-hydroxy-7a,14a-bis(methylthio)-7,14-dioxo-5,5a,7,7a,8,12,12a,14,14a,15-decahydrooxepino[3'',4'':4',5']pyrrolo[1',2':4,5]pyrazino[1,2-a]indol-5-yl 3-hydroxy-2,4,6-trimethyl-5-oxooct-6-enoate	*P. boydii*		[68]
Boydines D (**115**)	epipolythiodioxopiperazine	(2*S*,3*R*,4*S*,*E*)-(5*S*,5a*S*,7a*R*,14a*R*)-12-hydroxy-7a,14a-	*P. boydii*		[68]

		bis(methylthio)-7,14-dioxo-5,5a,7,7a,8,14,14a,15-octahydrooxepino[3'',4'':4',5']pyrrolo[1',2':4,5]pyrazino[1,2-a]indol-5-yl 3-hydroxy-2,4,6-trimethyl-5-oxooct-6-enoate			
4a-*epi*-9α-Methoxydihydrodeoxybostrycin (**116**)	hydroanthraquinone	(2*R*,3*S*,4a*S*,9a*R*,10*R*)-2,3,5,8-tetrahydroxy-6,10-dimethoxy-3-methyl-1,3,4,4a,9a,10-hexahydroanthracen-9(2*H*)-one	*Nigrospora* sp.		[69]
10-Deoxybostrycin (**117**)	anthracene compound	(1*S*,2*R*,3*S*)-6-methoxy-3-methyl-1,2,3,4-tetrahydroanthracene-1,2,3,5,8,10-hexaol	*Nigrospora* sp.		[69]
Nigrosporin B (**118**)	anthracene compound	(6*S*,7*R*)-3-methoxy-6-methyl-5,6,7,8-tetrahydroanthracene-1,4,6,7,9-pentaol	*Nigrospora* sp.	antibacterial	[69]
9α-Hydroxydihydrodesoxybostrycin (**119**)	hydroanthraquinone	(2*R*,3*S*,4a*S*,9a*S*,10*R*)-2,3,5,8,10-pentahydroxy-6-methoxy-3-methyl-1,3,4,4a,9a,10-hexahydroanthracen-9(2*H*)-one	*Nigrospora* sp.		[69]
9α-Hydroxyhalorosellinia A (**120**)	hydroanthraquinone	(2*R*,3*S*,4a*R*,9a*R*,10*R*)-2,3,5,8,9a,10-hexahydroxy-6-methoxy-3-methyl-1,3,4,4a,9a,10-hexahydroanthracen-9(2*H*)-one	*Nigrospora* sp.		[69]
4-Deoxybostrycin (**121**)	hydroanthraquinone	(6*R*,7*S*)-2-methoxy-7-methyl-5,6,7,8-tetrahydroanthracene-1,4,6,7,9,10-hexaol	*Nigrospora* sp.		[69]
Bostrycin (**122**)	anthracene compound	(1*S*,2*R*,3*S*)-6-methoxy-3-methyl-1,2,3,4-tetrahydroanthracene-1,2,3,5,8,9,10-heptaol	*Nigrospora* sp.		[69]
Austrocortirubin (**123**)	anthraquinone	1,4,6-trihydroxy-2-methoxy-7-methylanthracene-9,10-dione	*Nigrospora* sp.		[69]
3,5,8-Trihydroxy-7-methoxy-2-methylanthracene-9,10-dione (**124**)	anthraquinone	1-hydroxy-3-methoxy-6-methylanthracene-9,10-dione	*Nigrospora* sp.		[69]
3-Acetoxy-4-deoxybostrycin (**125**)	anthracene compound	(2*R*,3*S*)-3,5,8,9,10-pentahydroxy-6-methoxy-3-methyl-1,2,3,4-tetrahydroanthracen-2-yl acetate	hemisynthesized from **121** for SAR studies	antibacterial	[69]
3-Acetoxybostrycin (**126**)	anthracene compound	(1*S*,2*R*,3*S*)-1,3,5,8,9,10-hexahydroxy-6-methoxy-3-methyl-1,2,3,4-tetrahydroanthracen-2-yl acetate	hemisynthesized from **122** for SAR studies		[69]
8-Acetoxy-3,5-dihydroxy-7-methoxy- 2-methylanthracene-9,10-dione (**127**)	anthraquinone	4,6-dihydroxy-2-methoxy-7-methyl-9,10-dioxo-9,10-dihydroanthracen-1-yl acetate	hemisynthesized from **124** for SAR studies		[69]
5-Acetoxy-3,8-dihydroxy-7-methoxy-2-methylanthracene-9,10-dione (**128**)	anthraquinone	4,7-dihydroxy-3-methoxy-6-methyl-9,10-dioxo-9,10-dihydroanthracen-1-yl acetate	hemisynthesized from **124** for SAR studies		[69]
3-Acetoxy-5,8-dihydroxy-7-methoxy-2-methylanthracene-9,10-dione (**129**)	anthraquinone	5,8-dihydroxy-6-methoxy-3-methyl-9,10-dioxo-9,10-dihydroanthracen-2-yl acetate	hemisynthesized from **124** for SAR studies		[69]
5,8-Diacetoxy-3-hydroxy- 7-methoxy-2-methylanthracene-9,10-dione (**130**)	anthraquinone	6-hydroxy-2-methoxy-7-methyl-9,10-dioxo-9,10-dihydroanthracene-1,4-diyl diacetate	hemisynthesized from **124** for SAR studies		[69]

3,8-Diacetoxy-5-hydroxy-7-methoxy-2-methylanthracene-9,10-dione (**131**)	anthraquinone	4-hydroxy-2-methoxy-7-methyl-9,10-dioxo-9,10-dihydroanthracene-1,6-diyl diacetate	hemisynthesized from **124** for SAR studies		[69]
3,5-Diacetoxy-8-hydroxy-7-methoxy-2-methylanthracene-9,10-dione (**132**)	anthraquinone	4-hydroxy-3-methoxy-6-methyl-9,10-dioxo-9,10-dihydroanthracene-1,7-diyl diacetate	hemisynthesized from **124** for SAR studies		[69]
3,5,8-Triacetoxy- -7-methoxy-2-methylanthracene-9,10-dione (**133**)	anthraquinone	2-methoxy-7-methyl-9,10-dioxo-9,10-dihydroanthracene-1,4,6-triyl triacetate	hemisynthesized from **124** for SAR studies		[69]
8-Acetoxyaustrocortirubin (**134**)	hydroanthraquinone	4-hydroxy-2-methoxy-7-methyl-9,10-dioxo-9,10-dihydroanthracen-1-yl acetate	hemisynthesized from **123** for SAR studies		[69]
Spiromastixones A (**135**)	depsidone analogue	3,8-dihydroxy-1,6-dipropyl-11*H*-dibenzo[b,e][1,4]dioxepin-11-one	*Spiromastix* sp.		[70]
Spiromastixones B (**136**)	depsidone analogue	2-chloro-3,8-dihydroxy-1,6-dipropyl-11*H*-dibenzo[b,e][1,4]dioxepin-11-one	*Spiromastix* sp.		[70]
Spiromastixones C (**137**)	depsidone analogue	4-chloro-3,8-dihydroxy-1,6-dipropyl-11*H*-dibenzo[b,e][1,4]dioxepin-11-one	*Spiromastix* sp.		[70]
Spiromastixones D (**138**)	depsidone analogue	4,7-dichloro-3,8-dihydroxy-1,6-dipropyl-11*H* dibenzo[b,e][1,4]dioxepin-11-one	*Spiromastix* sp.		[70]
Spiromastixones E (**139**)	depsidone analogue	2,4-dichloro-3,8-dihydroxy-1,6-dipropyl-11*H*-dibenzo[b,e][1,4]dioxepin-11-one	*Spiromastix* sp.		[70]
Spiromastixones F (**140**)	depsidone analogue	2,4,7-trichloro-3,8-dihydroxy-1,6-dipropyl-11*H*-dibenzo[b,e][1,4]dioxepin-11-one	*Spiromastix* sp.	antibacterial	[70]
Spiromastixones G (**141**)	depsidone analogue	2,4,7-trichloro-3-hydroxy-8-methoxy-1,6-dipropyl-11*H*-dibenzo[b,e][1,4]dioxepin-11-one	*Spiromastix* sp.	antibacterial	[70]
Spiromastixones H (**142**)	depsidone analogue	2,4,9-trichloro-3,8-dihydroxy-1,6-dipropyl-11*H*-dibenzo[b,e][1,4]dioxepin-11-one	*Spiromastix* sp.	antibacterial	[70]
Spiromastixones I (**143**)	depsidone analogue	2,4,7,9-tetrachloro-3,8-dihydroxy-1,6-dipropyl-11*H*-dibenzo[b,e][1,4]dioxepin-11-one	*Spiromastix* sp.	antibacterial	[70]
Spiromastixones J (**144**)	depsidone analogue	2,4,7,9-tetrachloro-3-hydroxy-8-methoxy-1,6-dipropyl-11*H*-dibenzo[b,e][1,4]dioxepin-11-one	*Spiromastix* sp.	antibacterial	[70]
Spiromastixones K (**145**)	depsidone analogue	2,4,7-trichloro-3-hydroxy-8-methoxy-1,9-dipropyl-11*H*-dibenzo[b,e][1,4]dioxepin-11-one	*Spiromastix* sp.		[70]
Spiromastixones L (**146**)	depsidone analogue	2,4,6,7-tetrachloro-3-hydroxy-8-methoxy-1,9-dipropyl-11*H*-dibenzo[b,e][1,4]dioxepin-11-one	*Spiromastix* sp.		[70]
Spiromastixones M (**147**)	depsidone analogue	2,4-dichloro-3,8-dihydroxy-1,9-dipropyl-11*H*-dibenzo[b,e][1,4]dioxepin-11-one	*Spiromastix* sp.		[70]
Spiromastixones N (**148**)	depsidone analogue	2,4,7-trichloro-3,8-dihydroxy-1,9-dipropyl-11*H*-dibenzo[b,e][1,4]dioxepin-11-one	*Spiromastix* sp.		[70]
Spiromastixones O (**149**)	depsidone analogue	2,4,6,7-tetrachloro-3,8-dihydroxy-1,9-dipropyl-11*H*-dibenzo[b,e][1,4]dioxepin-11-one	*Spiromastix* sp.		[70]
Cyclopaldic acid (**150**)	dihydroisobenzofuran	3,5-dihydroxy-7-methoxy-6-methyl-1-oxo-1,3-	*Seiridium cupressi*	insecticide activity	[78,80]

		dihydroisobenzofuran-4-carbaldehyde			
Compound (**151**)	dihydroisobenzofuran	7-methoxy-6-methyl-1-oxo-1,3-dihydroisobenzofuran-4-carboxylic acid	hemisynthesized from **150** for SAR studies		[78,80]
Compound (**152**)	dihydroisobenzofuran	7-formyl-6-hydroxy-4-methoxy-5-methyl-3-oxo-1,3-dihydroisobenzofuran-1-yl acetate	hemisynthesized from **150** for SAR studies		[78,80]
Compound (**153**)	dihydroisobenzofuran	(3,5-diacetoxy-7-methoxy-6-methyl-1-oxo-1,3-dihydroisobenzofuran-4-yl)methylene diacetate	hemisynthesized from **150** for SAR studies		[78,80]
Compound (**154**)	dihydroisobenzofuran	4-isobenzofurancarboxaldehyde, 1,3-dihydro-3,5-dihydroxy-7-methoxy-6-methyl-1-oxo-, 4-[2-(2,4-dinitrophenyl)hydrazone]	hemisynthesized from **150** for SAR studies		[78,80]
Compound (**155**)	dihydroisobenzofuran	1-naphthalenesulfonic acid, 5-(dimethylamino)-, 2-[(1,3-dihydro-3,5-dihydroxy-7-methoxy-6-methyl-1-oxo-4-isobenzofuranyl)methylene]hydrazide	hemisynthesized from **150** for SAR studies		[78,80]
Compound (**156**)	aromatic compound	benzoic acid, 2,3-bis[[2-[[5-(dimethylamino)-1-naphthalenyl]sulfonyl]hydrazinylidene]methyl]-4-hydroxy-6-methoxy-5-methyl-	hemisynthesized from **150** for SAR studies		[78,80]
Compound (**157**)	dihydroisobenzofuran	7-formyl-6-hydroxy-4-methoxy-5-methyl-3-oxo-1,3-dihydroisobenzofuran-1-yl 5-azidopentanoate	hemisynthesized from **150** for SAR studies		[78,80]
Compound (**158**)	dihydroisobenzofuran	5-hydroxy-7-methoxy-6-methyl-2a,4-dihydro-1*H*-2,3-dioxacyclopenta[cd]inden-1-one	hemisynthesized from **150** for SAR studies		[78,80]
Compound (**159**)	isobenzofuran	5-hydroxy-4-(hydroxymethyl)-7-methoxy-6-methylisobenzofuran-1(3*H*)-one	hemisynthesized from **150** for SAR studies		[78,80]
Seiridin (**160**)	furanone	(*R*)-4-(6-hydroxyheptyl)furan-2(5*H*)-one	*Seiridium cardinale*		[82]
2′-*O*-Acetylseiridin (**161**)	furanone	(*R*)-7-(4-methyl-5-oxo-2,5-dihydrofuran-3-yl)heptan-2-yl acetate	hemisynthesized from **160** for SAR studies		[82]
Compound (**162**)	furanone	4-((*R*)-6-hydroxyheptyl)-3-methyldihydrofuran-2(3H)-one	hemisynthesized from **160** for SAR studies		[82]
Compound (**163**)	furanone	3-methyl-4-(6-oxoheptyl)furan-2(5*H*)-one	hemisynthesized from **160** for SAR studies		[82]
Isoseiridin (**164**)	furanone	(*R*)-4-(5-hydroxyheptyl)furan-2(5*H*)-one	*S. cardinale*		[82]
Compound (**165**)	pimarane diterpene	4-azidobutyl ((2*R*,4a*R*,4b*R*,8a*S*,9*R*)-4a-hydroxy-2,8,8-trimethyl-10,12-dioxo-2-vinyl-3,4,4a,5,6,7,8,8a,9,10-decahydro-2*H*-9,4b-(epoxymethano)phenanthren-9-yl) carbonate	hemisynthesized from **1** for SAR studies		[78]
Compound (**166**)	pimarane diterpene	(2*R*,4a*R*,4b*R*,8a*S*,9*S*,10*R*)-4a-hydroxy-9,10-dimethoxy-2,8,8-trimethyl-2-vinyl-3,4,4a,5,6,7,8,8a,9,10-decahydro-2H-9,4b-(epoxymethano)phenanthren-12-one	hemisynthesized from **2** for SAR studies		[78]
Papyracillic acid (**167**)	dioxaspiro	(5*S*,7*R*,8*S*)-7-hydroxy-4-methoxy-7,8-dimethyl-9-methylene-1,6-dioxaspiro[4.4]non-3-en-2-one	*Ascochyta agropyrina* var. *nana*	mycoherbicide	[79,83, 84]
Compound (**168**)	furanone	3-methoxy-2-(3-methyl-4-oxopent-1-en-2-yl)-5-oxo-2,5-dihydrofuran-2-yl acetate	hemisynthesized from **167** for SAR studies		[84,85]

Compound (**169**)	furanone	(*Z*)-2-(3-methoxy-5-oxofuran-2(5*H*)-ylidene)-3-methyl-4-oxopentyl acetate	hemisynthesized from **167** for SAR studies		[84,85]
Compound (**170**)	furanone	(*E*)-2-(3-methoxy-5-oxofuran-2(5*H*)-ylidene)-3-methyl-4-oxopentyl acetate	hemisynthesized from **167** for SAR studies		[84,85]
Compound (**171**)	dioxaspiro	(5*S*,7*R*,8*S*,9*R*)-7-hydroxy-4,7,8,9-tetramethyl-1,6-dioxaspiro[4.4]non-3-en-2-one	hemisynthesized from **167** for SAR studies		[84,85]
Compound (**172**)	dioxaspiro	(5*S*,7*R*,8*S*)-4,7-dimethoxy-7,8-dimethyl-9-methylene-1,6-dioxaspiro[4.4]non-3-en-2-one	hemisynthesized from **167** for SAR studies		[84,85]
Compound (**173**)	dioxaspiro	(5*S*,7*R*,8*S*)-7-ethoxy-4-methoxy-7,8-dimethyl-9-methylene-1,6-dioxaspiro[4.4]non-3-en-2-one	hemisynthesized from **167** for SAR studies		[84,85]
Compound (**174**)	dimethylcyclobutyl	(2S)-2-(3-(heptyloxy)-2,3-dimethylcyclobut-1-en-1-yl)-3-methoxy-2,5-dihydrofuran-2,5-diol	hemisynthesized from **167** for SAR studies		[84,85]
Compound (**175**)	dimethylcyclobutyl	(2*R*)-2-(3-(heptyloxy)-2,3-dimethylcyclobut-1-en-1-yl)-3-methoxy-2,5-dihydrofuran-2,5-diol	hemisynthesized from **167** for SAR studies		[84,85]
Compound (**176**)	oxadiazine	(*E*)-methyl 3-methoxy-3-(5-((1*S*)-1-(2-methyloxiran-2-yl)ethyl)-4*H*-1,2,3-oxadiazin-6-yl)acrylate	hemisynthesized from **167** for SAR studies		[84,85]
Compound (**177**)	oxadiazetyl	(*E*)-methyl 3-methoxy-3-(3-((1*S*)-1-(4-methyl-4*H*-1,2,3-oxadiazet-4-yl)ethyl)-4,5-dihydrofuran-2-yl)acrylate	hemisynthesized from **167** for SAR studies		[84,85]
Compound (**178**)	oxadiazetyl	(*E*)-methyl 3-methoxy-3-(3-((1*R*)-1-(4-methyl-4*H*-1,2,3-oxadiazet-4-yl)ethyl)-4,5-dihydrofuran-2-yl)acrylate	hemisynthesized from **167** for SAR studies		[84,85]
Preaustinoid A (**179**)	meroterpenoids	(6a*R*,7*S*,9*R*,11*S*,12b*R*)-methyl 9-hydroxy-4,4,6a,9,11,12b-hexamethyl-13-methylene-3,8,10-trioxohexadecahydro-7,11-methanocycloocta[a]naphthalene-7-carboxylate	*Penicillium sp.*		[86-89]
Preaustinoid B (**180**)	meroterpenoids	(6a*R*,7*S*,9*R*,10*S*,11b*R*)-methyl 9-acetyl-9-hydroxy-4,4,6a,10,11b-pentamethyl-12-methylene-3,8-dioxotetradecahydro-1*H*-7,10-methanocyclohepta[a]naphthalene-7-carboxylate	*Penicillium sp.*		[86-89]
Preaustinoid A2 (**181**)	meroterpenoids	(7a*R*,8*S*,10*R*,12*S*,13b*R*)-methyl 10-hydroxy-5,5,7a,10,12,13b-hexamethyl-14-methylene-3,9,11-trioxo-3,5,5a,6,7,7a,8,9,10,11,12,13,13a,13b-tetradecahydro-8,12-methanocycloocta[3,4]benzo[1,2-c]oxepine-8-carboxylate	*Penicillium sp.*		[86-89]
Dehydroaustin (**182**)	meroterpenoids	(1*S*,3a*R*,3'*S*,5*R*,6*R*,10a*R*,11a*S*)-1,2',2',5-tetramethyl-4,7-dimethylene-3,6',12-trioxo-2',3,4,5,6,6a,6',7,9,10-decahydro-1*H*-spiro[5,11a-(epoxymethano)naphtho[1',8a':3,4]oxeto[2,3-c]furan-8,3'-pyran]-6-yl acetate	*Penicillium sp.*	larvicidal activities	[86-89]
Acetoxydehydroaustin (**183**)	meroterpenoids	(1*S*,3a*R*,3'*S*,5*R*,6*R*,10*S*,10a*R*,11a*S*)-1,2',2',5-	*Penicillium sp.*	larvicidal activities	[86-89]

		tetramethyl-4,7-dimethylene-3,6',12-trioxo-2',3,4,5,6,6a,6',7,9,10-decahydro-1*H*-spiro[5,11a-(epoxymethano)naphtho[1',8a':3,4]oxeto[2,3-c]furan-8,3'-pyran]-6,10-diyl diacetate			
Neoaustin (**184**)	meroterpenoids	(3*S*,3a*S*,3'*S*,5*S*,6a*R*,10a*R*,10b*S*)-3a-hydroxy-2',2',3,5,10a-pentamethyl-7,11-dimethylene-3,3a,5,6,6a,7,10,10a-octahydro-1*H*-spiro[5,10b-methanobenzo[3,4]cyclohepta[1,2-c]furan-8,3'-pyran]-1,4,6'(2'*H*,9*H*)-trione	*Penicillium sp.*		[86-89]
Austin (**185**)	meroterpenoids	(3S,3aS,3'S,6*R*,7*R*,11a*R*,11b*S*)-3a-hydroxy-2',2',3,6,8,11a-hexamethyl-12-methylene-1,4,6'-trioxo-2',3,3a,4,6,6',7,10,11,11a-decahydro-1*H*-spiro[6,11b-methanobenzo[e]furo[3,4-c]oxocine-9,3'-pyran]-7-yl acetate	*Penicillium sp.*		[86-89]
Okaramine A (**186**)	prenylated indole alkaloids	5*H*-indolo[3''',2''':4'',5'']azocino[1'',2'':4',5']pyrazino[1',2':1,5]pyrrolo[2,3-*b*]indole-10,18(6*H*,10a*H*)-dione, 16-(1,1-dimethyl-2-propen-1-yl)-11,11a,16,16a-tetrahydro-11a-hydroxy-6,6-dimethyl-, (10a*R*,11a*R*,16a*S*)-	*Penicillium simplicissimum* AK-40 (ATCC 90288)		[87-90]
Okaramine B (**187**)	prenylated indole alkaloids	5*H*-azeto[1,2-*a*]indolo[3''',2''':4'',5'']azocino[1'',2'':4',5']pyrazino[1',2':1,5]pyrrolo[2,3-*b*]indole-10,20(6*H*,10a*H*)-dione, 11,11a,17,18-tetrahydro-10a,11a-dihydroxy-11-methoxy-6,6,17,17,18-pentamethyl-, (10a*S*,11*S*,11a*R*,18*R*,18a*S*)-	*P. simplicissimum* AK-40 (ATCC 90288)	insecticidal	[87-90]
Okaramine C (**188**)	prenylated indole alkaloids	2*H*-pyrazino[1',2':1,5]pyrrolo[2,3-*b*]indole-1,4(3*H*,5a*H*)-dione, 6-(1,1-dimethyl-2-propen-1-yl)-3-[[2-(1,1-dimethyl-2-propen-1-yl)-1*H*-indol-3-yl]methyl]-6,10b,11,11a-tetrahydro-10b-hydroxy-, (3*S*,5a*R*,10b*S*,11a*S*)-	*P. simplicissimum* AK-40 (ATCC 90288)		[87-90]
Okaramine G (**189**)	prenylated indole alkaloids	2*H*-Pyrazino[1',2':1,5]pyrrolo[2,3-*b*]indole-1,4(3*H*,5a*H*)-dione, 6-(1,1-dimethyl-2-propen-1-yl)-3-[[2-(1,1-dimethyl-2-propen-1-yl)-1*H*-indol-3-yl]methylene]-6,10b,11,11a-tetrahydro-10b-hydroxy-, (3*Z*,5a*S*,10b*R*,11a*R*)-	*P. simplicissimum* AK-40 (ATCC 90288)		[87-90]
Okaramine H (**190**)	prenylated indole alkaloids	5*H*-indolo[3''',2''':4'',5'']azocino[1'',2'':4',5']pyrazino[1',2':1,5]pyrrolo[2,3-*b*]indole-10,18(6*H*,10a*H*)-dione, 11,11a,16,16a-tetrahydro-11a-hydroxy-6,6-dimethyl-16-(3-methyl-2-buten-1-yl)-, (10a*R*,11a*R*,16a*S*)-	*P. simplicissimum* AK-40 (ATCC 90288)		[87-90]
Okaramine I (**191**)	prenylated indole alkaloids	5*H*-indolo[3''',2''':4'',5'']azocino[1'',2'':4',5']pyrazino[1',2':1,5]pyrrolo[2,3-*b*]indole-10,18(6*H*,10a*H*)-dione, 11,11a,16,16a-tetrahydro-11a-hydroxy-6,6-dimethyl-, (10a*R*,11a*R*,16a*S*)-	*P. simplicissimum* AK-40 (ATCC 90288)		[87-90]

Okaramine N (**192**)	prenylated indole alkaloids	5*H*-indolo[3''',2''':4'',5'']azocino[1'',2'':4',5']pyrazino[1',2':1,5]pyrrolo[2,3-*b*]indole-10,18(6*H*,10a*H*)-dione, 16-(1,1-dimethyl-2-propen-1-yl)-11,11a,16,16a,18a,19-hexahydro-11a-hydroxy-6,6-dimethyl-, (10a*S*,11a*S*,16a*R*,18a*S*)-	*P. simplicissimum* AK-40 (ATCC 90288)		[87-90]
Okaramine Q (**193**)	prenylated indole alkaloids	5*H*-azeto[1,2-*a*]indolo[3''',2''':4'',5'']azocino[1'',2'':4',5']pyrazino[1',2':1,5]pyrrolo[2,3-*b*]indole-10,20(6*H*,10a*H*)-dione, 11,11a,17,18-tetrahydro-10a,11a-dihydroxy-6,6,17,17,18-pentamethyl-, (10a*R*,11a*S*,18*S*,18a*R*)-	*P. simplicissimum* AK-40 (ATCC 90288)		[87-90]
2-Dehydroxy-3-demethoxy okaramine B (**194**)	prenylated indole alkaloids	5*H*-azeto[1,2-*a*]indolo[3''',2''':4'',5'']azocino[1'',2'':4',5']pyrazino[1',2':1,5]pyrrolo[2,3-*b*]indole-10,20(6*H*,10a*H*)-dione, 11,11a,17,18-tetrahydro-11a-hydroxy-6,6,17,17,18-pentamethyl-, (10a*R*,11a*S*,18*S*,18a*R*)-	*P. simplicissimum* AK-40 (ATCC 90288)		[87-90]
Cyclo(N8-(α,α-dimethylallyl)-L-Trp-6a'-(α,α-dimethylallyl)-L-Trp) (**195**)	prenylated indole alkaloids	(3*S*,6*S*)-3-((1-(2-methylbut-3-en-2-yl)-1*H*-indol-3-yl)methyl)-6-((2-(2-methylbut-3-en-2-yl)-1*H*-indol-3-yl)methyl)piperazine-2,5-dione	*P. simplicissimum* AK-40 (ATCC 90288)		[87-90]
Chenopodolin (**196**)	pimarane diterpene	(1*S*,2*S*,5*S*,5a*S*,9*S*,10*S*,11a*R*,11b*S*,12*S*)-12-hydroxy-5,9,11b-trimethyl-4,6-dioxo-9-vinyl-1,2,4,5,5a,6,8,9,10,11,11a,11b-dodecahydro-2,5-methanonaphtho[1,2-d]oxepine-1,10-diyl diacetate	*Phoma chenopodiicola*	phytotoxicity	[91,92]
Stagonolide (**197**)	nonenolides	(9*R*,10*R*,*E*)-9-hydroxy-10-propyl-4,5,9,10-tetrahydro-2H-oxecine-2,8(3*H*)-dione	*P. chenopodiicola*		[93]
Putaminoxin (**198**)	nonenolides	(6*S*,*Z*)-6-hydroxy-10-propyl-3,4,5,6,9,10-hexahydro-2H-oxecin-2-one	*P. chenopodiicola*	phytotoxicity	[93]
Pinolidoxin (**199**)	nonenolides	(2*E*,4*E*)-(3*S*,8*R*,9*S*,10*R*,*E*)-8,9-dihydroxy-2-oxo-10-propyl-3,4,5,8,9,10-hexahydro-2H-oxecin-3-yl hexa-2,4-dienoate	*Stagonospora*, *Phoma* and *Ascochyta* spp	phytotoxicity	[93]
Cytochalasins F (**200**)	cytochalasan	(1E,4R,9E,12aS,15S,16S,16aR,17aS)-15-benzyl-4,16,16a-trimethyl-4,5,6,7,15,15a,16,16a-octahydro-3H-[1]oxacyclotetradecino[2,3-d]oxireno[2,3-f]isoindole-8,11,13(14H,17aH,17bH)-trione	*Stagonospora*, *Phoma* and *Ascochyta* spp		[93]
Cytochalasins T (**201**)	cytochalasan	(3*S*,4*S*,7*E*,10*R*,14*R*,15*E*,18a*R*)-3-benzyl-14-hydroxy-4,5,10-trimethyl-2,3,3a,4,9,10,11,12,13,14-decahydro-1*H*-[1]oxacyclotetradecino[2,3-d]isoindole-1,17(6a*H*)-dione	*Stagonospora*, *Phoma* and *Ascochyta* spp		[93]
Cytochalasins Z1 (**202**)	cytochalasan	(3*S*,4*S*,7*E*,10*R*,15*E*,18a*R*)-3-(4-hydroxybenzyl)-4,5,10-trimethyl-2,3,3a,4,9,10,11,12,13,14-decahydro-1*H*-[1]oxacyclotetradecino[2,3-d]isoindole-1,17(6aH)-dione	*Stagonospora*, *Phoma* and *Ascochyta* spp		[93]
Cytochalasins Z2 (**203**)	cytochalasan	(3*S*,4*S*,7*E*,10*R*,14*R*,15*E*,18a*R*)-3-benzyl-14-hydroxy-5-(hydroxymethyl)-4,10-dimethyl-	*Stagonospora*, *Phoma* and *Ascochyta* spp		[93]

		2,3,3a,4,9,10,11,12,13,14-decahydro-1*H*-[1]oxacyclotetradecino[2,3-d]isoindole-1,17(6a*H*)-dione			
Cytochalasins Z3 (**204**)	cytochalasan	(3*S*,4*S*,6*S*,7*E*,10*R*,15*E*,18a*S*)-3-benzyl-6,13-dihydroxy-4,10-dimethyl-5-methylene-3,3a,4,5,6,6a,9,10,11,12,13,14-dodecahydro-1*H*-[1]oxacyclotetradecino[2,3-d]isoindole-1,17(2*H*)-dione	*Stagonospora*, *Phoma* and *Ascochyta* spp		[93]
Agropyrenol (**205**)	substituted salicylaldehyde	2-((3R,4R,E)-3,4-dihydroxypent-1-en-1-yl)-6-hydroxybenzaldehyde	*A. agropyrina* var. *nana*		[94,95]
Phomentrioloxin (**206**)	cyclohex-5-ene-1,2,4-triol	(1*R*,2*R*,3*R*,4*R*)-3-methoxy-6-(7-methyl-3-methyleneoct-6-en-1-yn-1-yl)cyclohex-5-ene-1,2,4-triol	*Phomopsis* sp.		[96,97]
Fusicoccin (**207**)	diterpene	(*S*)-2-((1*S*,4*R*,5*R*,6*R*,6a*S*,9*S*,10a*R*,*E*)-4-(((2*S*,3*R*,4*S*,5*R*,6*R*)-4-acetoxy-3,5-dihydroxy-6-(((2-methylbut-3-en-2-yl)oxy)methyl)tetrahydro-2*H*-pyran-2-yl)oxy)-1,5-dihydroxy-9-(methoxymethyl)-6,10a-dimethyl-1,2,4,5,6,6a,7,8,9,10a-decahydrodicyclopenta[a,d][8]annulen-3-yl)propyl acetate	*Fusicoccum amygda*		[2,101]
Dideacetylfusicoccin A (**208**)	diterpene	(2*S*,3*R*,4*S*,5*S*,6*R*)-2-(((1*S*,4*R*,5*R*,6*R*,6a*S*,9*S*,10a*R*,*E*)-1,5-dihydroxy-3-((*S*)-1-hydroxypropan-2-yl)-9-(methoxymethyl)-6,10a-dimethyl-1,2,4,5,6,6a,7,8,9,10a-decahydrodicyclopenta[a,d][8]annulen-4-yl)oxy)-6-(((2-methylbut-3-en-2-yl)oxy)methyl)tetrahydro-2*H*-pyran-3,4,5-triol	hemisynthesized from **207** for SAR studies		[2,101]
Isopropylidene derivative of fusicoccin aglycone (**209**)	diterpene	(3a*R*,6*S*,6a*R*,8*S*,10a*S*,11*R*,11a*R*,*E*)-4-((*S*)-1-hydroxypropan-2-yl)-8-(methoxymethyl)-2,2,6a,11-tetramethyl-3a,5,6,6a,8,9,10,10a,11,11a-decahydrodicyclopenta[3,4:6,7]cycloocta[1,2-d][1,3]dioxol-6-ol	hemisynthesized from **207** for SAR studies		[2,101]
16-*O*-Demethyl-de-*tert*-pentenylfusicoccin A (**210**)	diterpene	(2*R*,3*S*,4*R*,5*R*,6*S*)-6-(((1*S*,4*R*,5*R*,6*R*,6a*S*,11a*R*,*Z*)-1,5,9-triacetoxy-3-((S)-1-acetoxypropan-2-yl)-6,11a-dimethyl-2,4,5,6,6a,7,8,9,10,11a-decahydro-1*H*-benzo[a]cyclopenta[d][8]annulen-4-yl)oxy)tetrahydro-2*H*-pyran-2,3,4,5-tetrayl tetraacetate	hemisynthesized from **207** for SAR studies		[102]
16-*O*-Demethyl-de-*tert*-pentenylfusicoccin A (**211**)	diterpene	(2*R*,3*R*,4*S*,5*R*,6*S*)-2-(acetoxymethyl)-6-(((1*S*,4*R*,5*R*,6*R*,6a*S*,11a*R*,*Z*)-1,5-diacetoxy-3-((S)-1-acetoxypropan-2-yl)-6,11a-dimethyl-2,4,5,6,6a,7,8,11a-octahydro-1*H*-	hemisynthesized from **207** for SAR studies		[102]

		benzo[a]cyclopenta[d][8]annulen-4-yl)oxy)tetrahydro-2*H*-pyran-3,4,5-triyl triacetate			
Compound (**212**)	cyclohexanone	(1*S*,2*R*,6*S*)-3-methoxy-5-oxo-7-oxabicyclo[4.1.0]hept-3-en-2-yl 5-azidopentanoate	hemisynthesized from **7** for SAR studies		[100]
Compound (**213**)	cyclohexanone	(1*S*,2*R*,6*S*)-3-methoxy-5-oxo-7-oxabicyclo[4.1.0]hept-3-en-2-yl 4-bromobenzoate	hemisynthesized from **7** for SAR studies		[100]
Compound (**214**)	cyclohexanone	(1*S*,2*S*,6*S*)-3-methoxy-5-oxo-7-oxabicyclo[4.1.0]hept-3-en-2-yl 5-azidopentanoate	hemisynthesized from **8** for SAR studies		[100]
Compound (**215**)	cyclohexanone	(1*S*,2*S*,5*R*,6*R*)-3-methoxy-7-oxabicyclo[4.1.0]hept-3-ene-2,5-diol	hemisynthesized from **8** for SAR studies		[100]
Cochliotoxin (**216**)	dihydropyranopyrandione	(2*S*,3*S*)-3-hydroxy-2-methyl-7-(3-methyloxiran-2-yl)-2,3-dihydropyrano[4,3-b]pyran-4,5-dione	*Cochliobolus australiensis*	phytotoxicity	[106–108]
Radicinin (**217**)	dihydropyranopyrandione	(2*S*,3*S*)-3-hydroxy-2-methyl-7-((*E*)-prop-1-en-1-yl)-2,3-dihydropyrano[4,3-b]pyran-4,5-dione	*C. australiensis*	phytotoxicity	[106–108]
3-*epi*-Radicinin (**218**)	dihydropyranopyrandione	(2*S*,3*R*,4*S*)-3,4-dihydroxy-2-methyl-7-((*E*)-prop-1-en-1-yl)-3,4-dihydropyrano[4,3-b]pyran-5(2*H*)-one	*C. australiensis*	phytotoxicity	[106–108]
Radicinol (**219**)	dihydropyranopyrandione	(2*S*,3*R*)-3-hydroxy-2-methyl-7-((*E*)-prop-1-en-1-yl)-2,3-dihydropyrano[4,3-b]pyran-4,5-dione	*C. australiensis*		[106–108]
3-*epi*-Radicinol (**220**)	dihydropyranopyrandione	(2*S*,3*S*,4*S*)-3,4-dihydroxy-2-methyl-7-((*E*)-prop-1-en-1-yl)-3,4-dihydropyrano[4,3-b]pyran-5(2*H*)-one	*C. australiensis*		[106–108]
Chloromonilinic acid B (**221**)	chromanonacrylic acid	(*E*)-3-chloro-3-(5-hydroxy-3-(2-methoxy-2-oxoethyl)-7-methyl-4-oxo-4*H*-chromen-2-yl)acrylic acid	*C. australiensis*	phytotoxicity	[106–108]
Chloromonilinic acids C (**222**)	chromanonacrylic acid	(*S*,*E*)-3-chloro-3-(5-hydroxy-3-(1-hydroxy-2-methoxy-2-oxoethyl)-7-methyl-4-oxo-4*H*-chromen-2-yl)acrylic acid	*C. australiensis*	phytotoxicity	[106–108]
Chloromonilinic acids D (**223**)	chromanonacrylic acid	(*Z*)-3-chloro-3-(5-hydroxy-3-(2-methoxy-2-oxoethyl)-7-methyl-4-oxo-4*H*-chromen-2-yl)acrylic acid	*C. australiensis*	phytotoxicity	[106–108]
Chloromonilicin (**224**)	oxepinochromene	(*S*)-methyl 5-chloro-10-hydroxy-8-methyl-3,11-dioxo-3,11-dihydro-1*H*-oxepino[4,3-b]chromene-1-carboxylate	*C. australiensis*	phytotoxicity	[106–108]