

Thomas James Simpson
Publications

1. Structural, Stereochemical and Biosynthetic Studies of Three Groups of Fungal Metabolites, T.J. Simpson, Ph.D. Thesis, University of Bristol, 1972.
2. Structure and Stereochemistry of the Acid C₁₈H₁₆O₅, a Degradation Product of Wortmannin, J. MacMillan, T.J. Simpson, A.E. Vanstone and S.K. Yeboah, *J. Chem. Soc., Perkin Trans. 1*, 1972, 2892-2898.
3. Absolute Stereochemistry of the Fungal Product, Wortmannin, J. MacMillan, T.J. Simpson and S.K. Yeboah, *J. Chem. Soc., Chem. Commun.*, 1972, 1063.
4. The Absolute Stereochemistry of Colletodiol and the Structures of Related Metabolites of *Colletotrichum capsici*, J. Macmillan and T.J. Simpson, *J. Chem. Soc., Perkin Trans. 1*, 1973, 1487-1493.
5. Structure of Shamixanthone and Tajixanthone, Metabolites of *Aspergillus variegator*. K.K. Chexal. C. Fouweather, J.S.E. Holker, T.J. Simpson, *J. Chem. Soc., Perkin Trans. 1*, 1974, 1584-1593.
6. Tajixanthone: ¹³C Nuclear Magnetic Resonance Spectrum and Feedings with [1-¹³C]- and [2-¹³C]-Acetate, J.S.E. Holker, R.D. Lapper and T.J. Simpson, *J. Chem. Soc., Perkin Trans. 1*, 1974, 2135-2140.
7. Use of Singly and Doubly Labelled ¹³C-Acetate in the Elucidation of the Structures and Biosynthesis of Multicollic and Multicolisic Acids, New Tetronic Acids from *Penicillium multicolour*, J.A. Gudgeon, J.S.E. Holker and T.J. Simpson, *J. Chem. Soc., Chem. Commun.*, 1974, 636-638.
8. Structures of Variocoxanthenes A, B and C, Metabolites of *Aspergillus variegator*; Conversion of Variocoxanthenes A into (±)-De-C-prenylepishamixanthone, K.K. Chexal, J.S.E. Holker, T.J. Simpson and K. Young, *J. Chem. Soc., Perkin Trans. 1*, 1975, 543-548.
9. Structures and Biosynthesis of some Minor Metabolites from Variant Strains of *Aspergillus variegator*, K.K. Chexal, J.S.E. Holker and T.J. Simpson, *J. Chem. Soc., Perkin Trans. 1*, 1975, 549-554.
10. Limitations of ¹²C-labelling in ¹³C-NMR Studies, T.J. Simpson, *J. Magnetic Resonance*, 1975, **17**, 262-263.
11. Xanthomegnin, Viomellein, Rubrosulphin and Viopurpurin, Pigments from *Aspergillus sulphureus* and *Aspergillus melleus*, R.C. Durley, J. MacMillan, T.J. Simpson, A.T. Glen and W.B. Turner, *J. Chem. Soc., Perkin Trans. 1*, 1975, 163-169.
12. The ¹³C-NMR Spectrum of a Pyrone Metabolite of *Aspergillus melleus*. Biosynthetic Incorporation of Singly and Doubly Labelled [¹³C]-Acetate, T.J. Simpson, *Tetrahedron Lett.*, 1975, 175-178.
13. The Biosynthesis of a Pyrone Metabolite of *Aspergillus melleus*. An Application of Long-range ¹³C-¹³C Coupling Constants, T.J. Simpson and J.S.E. Holker, *Tetrahedron Lett.*, 1975, 4693-4696.
14. Biosynthesis of Ravenelin from [1-¹³C] and [1,2-¹³C]-Acetate, A.J. Birch, T.J. Simpson and P.W. Westerman, *Tetrahedron Lett.*, 1975, 4173-4177.
15. The Biosynthesis of Deoxyherqueinone in *Penicillium herquei* from [¹³C]-Acetate and [¹³C]-Malonate, T.J. Simpson, *J. Chem. Soc., Chem. Commun.*, 1975, 258-260.
16. ¹³C-Nuclear Magnetic Resonance in Biosynthetic Studies, T.J. Simpson, *Chem. Soc. Rev.* 1975, **4**, 497-522.

17. Biosynthesis of the Fungal Xanthone, Ravenelin, A.J. Birch, J. Baldas, J.R. Hulbucek, T.J. Simpson and P.W. Westerman, *J. Chem. Soc., Perkin Trans. 1*, 1976, 898-904.
18. The Structure of Phomazarin, a Polyketide Aza-anthraquinone from *Pyrenochaeta terrestris* Hansen, A.J. Birch, R. Effenberger, R.W. Rickards and T.J. Simpson, *Tetrahedron Lett.*, 1976, 2371-2374.
19. ¹³C-NMR Studies of Some Naturally Occurring Naphthoquinones and Related Compounds, I.A. McDonald, T.J. Simpson and A.F. Sierakowski, *Austral. J. Chem.*, 1977, **30**, 1727-34.
20. ¹³C-NMR Studies on Griseofulvin Biosynthesis and Acetate Metabolism in *Penicillium patulum*, T.J. Simpson and J.S.E. Holker, *Phytochemistry*, 1977, **77**, 229-233.
21. ¹³C-NMR Spectra and Biosynthetic Studies of Xanthomegnin and Related Pigments from *Aspergillus sulphureus* and *melleus*, T.J. Simpson, *J. Chem. Soc., Perkin Trans. 1*, 1977, 592-595.
22. "Polyketides", T.J. Simpson, *Biosynthesis*, ed. J.D. Bu'lock, (Specialist Periodical Reports), Vol 5, 1977, pp 1-33.
23. Biosynthesis of Andibenin, a Novel Polyketide-terpenoid Metabolite of *Aspergillus variegator*, J.S.E. Holker and T.J. Simpson, *J. Chem. Soc., Chem. Commun.* 1978, 626-627.
24. Use of Long Range ¹H-¹³C Couplings in Structure Determination: Stellatin, a Novel Dihydroisocoumarin from *Aspergillus variegator*, T.J. Simpson, *J. Chem. Soc., Chem. Commun.* 1978, 627-628
25. Phomazarin. Part 1. The Structure of Phomazarin, an Aza-anthraquinone produced by *Pyrenochaeta terrestris* Hansen. A.J. Birch, D.N. Butler, R. Effenberger, R.W. Rickards and T.J. Simpson, *J. Chem. Soc., Perkin Trans. 1*, 1979, 807-815.
26. Phomazarin. Part 2. ¹³C NMR spectra and Biosynthesis of Phomazarin, A.J. Birch and T.J. Simpson, *J. Chem. Soc., Perkin Trans. 1*, 1979, 816-822.
27. Phomazarin. Part 3. The Structure of Iso-phomazarin, R. Effenberger and T.J. Simpson, *J. Chem. Soc., Perkin Trans. 1*, 1979, 823-826.
28. Biosynthesis of Wortmannin, a Steroidal Metabolite of *Penicillium wortmanni*, M.W. Lunnion, J. MacMillan, and T.J. Simpson, *J. Chem. Soc., Perkin Trans. 1*, 1979, 931-934.
29. ¹³C-NMR Structural and Biosynthetic Studies of Herqueichrysin and Deoxyherqueinone, Phenalenone Metabolites of *Penicillium herquei*, T.J. Simpson, *J. Chem. Soc., Perkin Trans. 1*, 1979, 1233-1238.
30. X-ray and Molecular Structure of the Mono-acetate of Colletotrichin, R. Goddard, I.K. Hatton, J.A.K. Howard, J. MacMillan, T.J. Simpson and C.J. Gilmore, *J. Chem. Soc., Perkin Trans. 1*, 1979, 1494-1498.
31. The Structure of Andibenin A and C, and Andilesins A, B, and C, Meroterpenoids from *Aspergillus variegator*, T.J. Simpson, *J. Chem. Soc., Perkin Trans. 1*, 1979, 2118-2121.
32. The Structure and Biosynthesis of Multicolanic, Multicollic and Multicolosic Acids, Novel Tetric Acid Metabolites of *Penicillium multicolor*, J.A. Gudgeon, J.S.E. Holker, T.J. Simpson and K. Young, *Bioorganic Chemistry*, 1979, **8**, 311-322.
33. "Polyketides", T.J. Simpson, *Biosynthesis*, ed. J.D. Bu'lock, (Specialist Periodical Reports), Vol 6, 1980, pp1-39.

34. Carbon-13 Nuclear Magnetic Resonance Biosynthetic Studies on Pentaketide Metabolites of *Aspergillus melleus*: (3-(1',2'-Epoxypropyl)-5,6-dihydro-5-hydroxy-6-methylpyran-2-one and Mellein, J.S.E. Holker and T.J. Simpson, *J. Chem. Soc., Perkin Trans. 1*, 1981, 1397-1400.
35. Isolation and X-ray Crystal Structures of Astellolides A and B, Sesquiterpenoid Metabolites of *Aspergillus variegator*, R.O. Gould, T.J. Simpson and M.D. Walkinshaw, *Tetrahedron Lett.*, 1981, 22, 1047-1050.
36. Biosynthesis of Tajixanthone in *Aspergillus variegator*: Incorporation of [²H₃] Acetate and [1,2-¹³C₂] Acetate, E. Bardshiri and T.J. Simpson, *J. Chem. Soc., Chem. Commun.* 1981, 195-196.
37. ¹³C and ²H NMR Studies on the Biosynthesis of O-methylasparvenone, a Hexaketide Metabolite of *Aspergillus parvulus*, T.J. Simpson and D.J. Stenzel, *J. Chem. Soc., Chem. Commun.* 1981, 239-240.
38. Anditomin, a New C₂₅ Metabolite from *Aspergillus variegator*, T.J. Simpson and M.D. Walkinshaw, *J. Chem. Soc., Chem. Commun.*, 1981, 914-915.
39. Biosynthesis of Highly Modified Meroterpenoids in *Aspergillus variegator*. Incorporation of ¹³C-labelled Acetates and Methionine into Anditomin and Andilein C, T.J. Simpson, *Tetrahedron Lett.*, 1981, 22, 3785-3788.
40. Biosynthesis of Austin, a Highly Modified Polyketide-Terpenoid Metabolite of *Aspergillus ustus*, T.J. Simpson and D.J. Stenzel, *J. Chem. Soc., Chem. Commun.* 1981, 1042-1043.
41. Biosynthesis of Terretonin, a Polyketide-terpenoid Metabolite of *Aspergillus terreus*, C.R. McIntyre and T.J. Simpson, *J. Chem. Soc., Chem. Commun.* 1981, 1043-1044.
42. Biosynthesis of the Meroterpenoid Metabolite, Andibenin B: Aromatic Precursors, A.J. Bartlett, J.S.E. Holker, E. O'Brien and T.J. Simpson, *J. Chem. Soc., Chem. Commun.*, 1981, 1198-1200.
43. ¹³C N.m.r. Spectral and Structural Studies on Austin and New Related Meroterpenoids from *Aspergillus ustus*, *Aspergillus variegator* and *Penicillium diversum*, T.J. Simpson, A.J. Bartlett, E. O'Brien, J.S.E. Holker, *J. Chem. Soc., Perkin Trans. 1*, 1982, 2687-2691.
44. Biosynthesis of Aflatoxins – Incorporation of [4'-²H₂]-Averufin into Aflatoxin B₁ by *Aspergillus flavus*, T.J. Simpson, A.E. de Jesus, P.S. Steyn and R. Vleggaar, *J. Chem. Soc., Chem. Commun.* 1982, 631-632.
45. Biosynthesis of Aflatoxins – Incorporations of [2-²H₃]Acetate and [1-¹³C, 2-²H₃]Acetate into Averufin, T.J. Simpson, A.E. de Jesus, P.S. Steyn and R. Vleggaar, *J. Chem. Soc., Chem. Commun.* 1982, 632-634.
46. Biosynthesis of the Meroterpenoid Metabolites, Austin and Terretonin: Incorporation of 3,5-Dimethylorsellinate, C.R. McIntyre, T.J. Simpson, D.J. Stenzel, A.J. Bartlett, E. O'Brien and J.S.E. Holker, *J. Chem. Soc., Chem. Commun.* 1972, 781-782.
47. Biosynthesis of Aflatoxins: Incorporation of [1,2-¹³C₂]Acetate, [²H₃]Acetate and [1-¹³C, ²H₃]Acetate into Sterigmatocystin in *Aspergillus versicolor*, T.J. Simpson and D.J. Stenzel, *J. Chem. Soc., Chem. Commun.*, 1982, 890-892.
48. Application of ²H β-Isotope Shifts in ¹³C NMR Spectra to Biosynthetic Studies. Incorporation of [1-¹³C₂, ²H₃]Acetate into O-Methylasparvenone in *Aspergillus parvulus*, T.J. Simpson and D.J. Stenzel, *J. Chem. Soc., Chem. Commun.*, 1982, 1074-1076.

49. ^2H -Labelling Studies of Aflatoxin B₁ and its Precursors, T.J. Simpson, D.J. Stenzel, A.E. de Jesus, P.S. Steyn and R. Vleggaar, "Proceedings of the Vth International IUPAC Symposium on Mycotoxins and Phycotoxins", Vienna, 1982, pp 192-195.
50. The Structure of Some Metabolites of *Penicillium diversum*: □ and □ Diversonolic Esters, J.S.E. Holker, E. O'Brien and T.J. Simpson, *J. Chem. Soc., Perkin Trans. 1*, 1982, 1365-1368.
51. Biosynthesis of Aflatoxins: Incorporation of [2- $^2\text{H}_3$]Acetate into Aflatoxin B₁ by *Aspergillus flavus*, T.J. Simpson, A.E. de Jesus, P.S. Steyn and R. Vleggaar, *J. Chem. Soc., Chem. Commun.* 1983, 338-340.
52. Synthesis and Regiospecific Deoxygenation of β -Resorcylic Ester Derivatives to 4-Hydroxybenzoates, A.J. Bartlett, J.S.E. Holker, T.J. Simpson and E. O'Brien, *J. Chem. Soc., Perkin Trans. 1*, 1983, 667-670.
53. ^{13}C and ^2H Labelling Studies on the Biosynthesis of Scytalone in *Phialophora lagerbergii*, E. Bardshiri and T.J. Simpson, *Tetrahedron*, 1983, **39**, 3539-3542.
54. *Biosynthesis*, eds. R.B. Herbert and T.J. Simpson, (Specialist Periodical Reports), Royal Society of Chemistry, Vol 7, 1983, (223 pages).
55. "Polyketides", T.J. Simpson in *Biosynthesis*, eds. R.B. Herbert and T.J. Simpson (Specialist Periodical Reports), The Royal Society of Chemistry, Vol 7, 1983, pp 1-44.
56. Studies on a Synthesis of (RS)-Mevalonic Acid Lactone, E. Bardshiri, T.J. Simpson, A.I. Scott and K. Shishido, *J. Chem. Soc., Perkin Trans. 1*, 1984, 1765-1767.
57. Structural Revision and Synthesis of LL-D253 α : a Chromanone metabolite of *Phoma pigmentivora*, C.R. McIntyre and T.J. Simpson, *J. Chem. Soc., Chem. Commun.* 1984, 704-706.
58. Biosynthesis of LL-D253 α in *Phoma pigmentivora*. Incorporation of ^{13}C , ^2H and ^{18}O Enriched Precursors, C.R. McIntyre, T.J. Simpson, L.A. Trimble and J.C. Vederas, *J. Chem. Soc., Chem. Commun.*, 1984, 706-709.
59. Biosynthesis of Monocerin. Incorporation of ^2H , ^{13}C and ^{18}O Labelled Acetates by *Dreschlera ravenelii*, F.E. Scott, T.J. Simpson, L.A. Trimble and J.C. Vederas, *J. Chem. Soc., Chem. Commun.*, 1984, 756-758.
60. Structure and Absolute configuration of the Asticolorins, Toxic Metabolites from *Aspergillus multicolor*, C.J. Rabie, T.J. Simpson, P.S. Steyn, P.H. van Rooyen and R.Vleggaar, *J. Chem. Soc., Chem. Commun.*, 1984, 764-765.
61. Stable Isotope Labelling Studies on the Biosynthesis of Asticolorin C by *Aspergillus multicolor*. Evidence for a Symmetrical Intermediate, P.S. Steyn, R. Vleggaar and T.J. Simpson, *J. Chem. Soc., Chem. Commun.*, 1984, 765-767.
62. "Biosynthesis of Polyketides", T.J. Simpson, *Nat. Prod. Reports*, 1984, **1**, 281-297.
63. "Aromatic Compounds", T.J. Simpson in "The Chemistry of Natural Products", ed. R.H. Thomson, Blackies, Glasgow, 1984, pp 107-153.
64. Biosynthesis of the Meroterpenoid, Austin, by *Aspergillus ustus*: Incorporation of $^{18}\text{O}_2$, Sodium [1- ^{13}C , $^{18}\text{O}_2$]Acetate and [Me- ^{13}C , $^2\text{H}_3$]Methionine, T.J. Simpson, D.J. Stenzel, R.N. Moore, L.A. Trimble and J.C. Vederas, *J. Chem. Soc., Chem. Commun.*, 1984, 1242-1243.
65. Biosynthesis of Tajixanthone and Shamixanthone by *Aspergillus varicolor*: Incorporation of Oxygen-18 Gas, E. Bardshiri, C.R. McIntyre, T.J. Simpson, R.N. Moore, L.A. Trimble and J.C. Vederas, *J. Chem. Soc., Chem. Commun.*, 1984, 1404-1406

66. Biosynthesis of the Meroterpenoid Metabolite, Andibenin B: Incorporation of Sodium [1-¹³C, ¹⁸O₂]Acetate and ¹⁸O₂, C.R. McIntyre, T.J. Simpson, R.N. Moore, L.A. Trimble and J.C. Vederas, *J. Chem. Soc., Chem. Commun.* 1984, 1498-1499.
67. Biosynthesis of Aspyrone and Asperlactone, Pentaketide Metabolites of *Aspergillus melleus*. Incorporation studies with [1-¹³C, ¹⁸O₂]Acetate and ¹⁸O₂ Gas, S.A. Ahmed, T.J. Simpson, J. Staunton, A.C. Sutkowski, L.A. Trimble and J.C. Vederas, *J. Chem. Soc., Chem. Commun.* 1985, 1685-1687.
68. Studies of Polyketide Chain Assembly Processes: Origins of the Hydrogen and Oxygen Atoms in Colletodiol, T.J. Simpson and G.I. Stevenson, *J. Chem. Soc., Chem. Commun.* 1985, 1822-1824.
69. Biosynthesis of Polyketides, T.J. Simpson, *Nat. Prod. Reports*, 1985, **2**, 321-347.
70. "Studies of Polyketide Chain-Assembly Processes", T.J. Simpson in "Mycotoxins and Phycotoxins", ed. P.S. Steyn, Elsevier, 1986, pp 85-96.
71. "¹³C NMR in Metabolic Studies", T.J. Simpson in "Modern Methods of Plant Analysis", Volume 2, eds. H.F. Linskens and J.F. Jackson, Springer-Verlag, 1986, pp 1-42.
72. Biosynthesis of the Meroterpenoid Austin, by *Aspergillus ustus*. Synthesis and Incorporation of ¹³C, ¹⁸O-Labelled 3,5-Dimethylorsellinate, F.E. Scott, T.J. Simpson, L.A. Trimble and J.C. Vederas, *J. Chem. Soc., Chem. Commun.*, 1986, 214-215.
73. Biosynthesis of the Meroterpenoid Metabolite, Andilesin A, by *Aspergillus variegator*: Origins of the Oxygen Atoms, C.R. McIntyre, F.E. Scott, T.J. Simpson, L.A. Trimble and J.C. Vederas, *J. Chem. Soc., Chem. Commun.*, 1986, 501-503.
74. Ultraviolet-Irradiated Urocanic Acid Suppresses Delayed-Type Hypersensitivity in Mice, J.A. Ross, S.E.M. Howie, M. Norval, J. Maingay and T.J. Simpson, *J. Invest. Dermatol.*, 1986, **87**, 630-633.
75. Biosynthesis, T.J. Simpson, *Annu. Rep. Prog. Chem., Sect. B*, 1986, **83**, 347-370.
76. Studies of Polyketide Chain Assembly Processes: Incorporation of [2-¹³C]Malonate into Averufin in *Aspergillus parasiticus*, I.M. Chandler and T.J. Simpson, *J. Chem. Soc., Chem. Commun.* 1987, 17-18.
77. A Convenient Synthesis of Isotopically Labelled Anthraquinones, Chrysophanol, Islandicin and Emodin. Incorporation of [*Methyl*-²H₃]Chrysophanol into Tajixanthone in *Aspergillus variegator*, S.A. Ahmed, E. Bardshiri and T.J. Simpson, *J. Chem. Soc., Chem. Commun.*, 1987, 883-884.
78. Alternariol is not Biosynthesised via Norlichexanthone, J. Dasenbrock and T.J. Simpson, *J. Chem. Soc., Chem. Commun.*, 1987, 1235-1236.
79. Applications of Multinuclear NMR to Structural and Biosynthetic Studies of Polyketide Microbial Metabolites, T.J. Simpson, *Chem. Soc. Rev.*, 1987, **16**, 123-160.
80. Biosynthesis of Polyketides, T.J. Simpson, *Nat. Prod. Reports*, 1987, **4**, 339-376.
81. Benzenoid and Polycyclic Aromatic Natural Products, T.J. Simpson, *Nat. Prod. Reports*, 1987, **4**, 639-676.
82. Synthesis of Substituted Benzenoids and Biphenyls via Diels-Alder Cycloaddition of 6-Methoxy-2-pyrones, S.A. Ahmed, E. Bardshiri and T.J. Simpson, *Tetrahedron Lett.*, 1988, **29**, 1595-1596.
83. Quantification of Urocanic Isomers in Murine Skin during Development and after Irradiation with Ultraviolet B Light, M. Norval, C.R. McIntyre, T.J. Simpson S.E.M. Howie and E. Bardshiri, *Photodermatology*, 1988, **5**, 179-186.

84. Urocanic Acid Analogues and the Suppression of the Delayed Type Hypersensitivity Response to Herpes Simplex Virus, M. Norval, T.J. Simpson, E. Bardshiri and S.E.M. Howie, *Photochem. Photobiol.*, 1989, **49**, 633-639.
85. High Field ^1H NMR Studies on the Ammoniation of Aflatoxin B₁, T.J. Simpson and A.D. Pemberton, *Tetrahedron*, 1989, **45**, 2451-2464.
86. Studies on the Biosynthesis of the Mycotoxin Austin, a Meroterpenoid Metabolite of *Aspergillus ustus*, S.A. Ahmed, F.E. Scott, D.J. Stenzel, T.J. Simpson, R.N. Moore, L.A. Trimble, K. Arai and J.C. Verderas, *J. Chem. Soc., Perkin Trans. 1*, 1989, 807-816.
87. Application of Stable Isotope Labelling Methodology to the Biosynthesis of the Mycotoxin, Terretonin, by *Aspergillus terreus*: Incorporation of the ^{13}C -Labelled Acetates and Methionine, ^2H - and ^{13}C , ^{18}O -Labelled Ethyl 3,5-Dimethylorsellinate and Oxygen-18 Gas, C.R. McIntyre, F.E. Scott, T.J. Simpson, L.A. Trimble and J.C. Verderas, *Tetrahedron*, 1989, **45**, 2307-2321.
88. The Determination by NMR Methods of the Structure and Stereochemistry of Astellatol, a New and Unusual Sesterterpene, T.J. Simpson and I.H. Sadler, *J. Chem. Soc., Chem. Commun.*, 1989, 1602.
89. Biosynthetic Studies on Pseudomonic Acid (Mupirocin) in *Pseudomonas fluorescens*, F.E. Martin and T.J. Simpson, *J. Chem. Soc., Perkin Trans. 1*, 1989, 207-209.
90. "Cloning and Analysis of Genes for the Biosynthesis of Polyketide Antibiotics in *Streptomyces* Species", D.H. Sherman, F. Malpartida, M.J. Bibb, H.M. Kieser, S.E. Hallam, J.A. Roinson, S. Bergh, M. Uhlen, T.J. Simpson and D.A. Hopwood, in *Proceedings of the 8th International Biotechnology Symposium*, eds. G. Durand, L. Bobichon and J. Florent, Société Française de Microbiologie, Paris, 1989, 123-137.
91. Urocanic Acid and Immunosuppression, M. Norval, T.J. Simpson and J.A. Ross, *Photochem. Photobiol.*, 1989, **50**, 267-275.
92. ^1H and ^{13}C NMR Spectral Assignment Studies of Terretonin, a Toxic Metabolite of *Aspergillus terreus*, C.R. McIntyre, D. Reed, I.H. Sadler and T.J. Simpson, *J. Chem. Soc., Perkin Trans. 1*, 1989, 1987.
93. Biosynthesis, T.J. Simpson, *Annu. Rep. Prog. Chem., Sect. B*, 1988, **85**, 321-351.
94. Quantification of Urocanic Acid Isomers in Human Stratum Corneum, M. Norval, T.J. Simpson, E. Bardshiri and J. Crosby, *Photodermatol.*, 1989, **6**, 142-145.
95. Effect of Histamine Receptor Antagonists on Immunosuppression Induced by the *cis*-Isomer of Urocanic Acid, M. Norval, J.W. Gilmore and T.J. Simpson, *Photodermatol. Photoimmunol. Photomed.*, 1990, **7**, 243-248.
96. "The Chemical Degradation of Mycotoxins", A.D. Pemberton and T.J. Simpson, in "Mycotoxins and Animal Feeding Stuffs: Natural Occurrence, Toxicity and Control", eds. J.E. Smith and R.S. Henderson, *CRC Press Inc.*, 1991, 797-813.
97. "Hybrid" Pathways for the Production of Secondary Metabolites, D.A. Hopwood, C. Khosla, M.J. Bibb, T.J. Simpson, M.A. Fernandez-Moreno, E. Martinez and F. Malpartida, in *Proceedings of the Sixth International Symposium on the Genetics of Industrial Microorganisms*, (GIM 90) Strasbourg, 1990, 12 pages.
98. "Application of Stable Isotope Labelling and Multinuclear NMR to Biosynthetic Studies", T.J. Simpson in, "Isotopes in the Physical and Medical Sciences", Volume 2, "Isotopic Applications in NMR Studies", eds. E. Buncel and J.R. Jones, Elsevier, 1991, 431-474.
99. The Biosynthesis of Polyketides, T.J. Simpson, *Nat. Prod. Reports*, 1991, **8**, 573-602.

100. Synthetic and Mechanistic Studies on Fungal Metabolic Pathways: A Guide to Fungicide Design, T.J. Simpson, M.P. Dillon and T.M. Donovan, *Pestic. Sci.*, 1991, **31**, 539-554.
101. The Synthesis of Isotopically Labelled N-Acetylcysteamine Thioesters Utilising a Baker's Yeast Reduction in D₂O, M.P. Dillon, T.J. Simpson and J.B. Sweeney, *BioMed. Chem. Lett.*, 1991, **1**, 223-226.
102. Molecular Genetic Analysis Reveals a Putative Bifunctional Polyketide Cyclase/Dehydrase Gene from *Streptomyces coelicolor*, and a Cyclase/O-methyltransferase from *Streptomyces glaucescens*, D.H. Sherman, M.J. Bibb, T.J. Simpson, D. Johnson, F. Malpardita, M. Fernandez-Moreno, E. Martinez, C.R. Hutchinson and D.A. Hopwood, *Tetrahedron*, 1991, **47**, 6029-6043.
103. Biosynthetic Studies on Tajixanthone and Shamixanthone, Polyketide Hemiterpenoid Metabolites of *Aspergillus variegator*, S.A. Ahmed, E. Bardshiri, C.R. McIntyre and T.J. Simpson, *Austral. J. Chem.*, 1992, **45**, 249-274.
104. Structural Revision and Synthesis of LL-D253 α and Related Chromanone Fungal Metabolites, I.M. Chandler, C.R. McIntyre and T.J. Simpson, *J. Chem. Soc., Perkin Trans. 1*, 1992, 2271-2284.
105. Biosynthesis of LL-D253 α , a Polyketide Chromanone Metabolite of *Phoma pigmentivora*: Incorporation of ¹³C, ²H and ¹⁸O Labelled Precursors, I.M. Chandler, C.R. McIntyre and T.J. Simpson, *J. Chem. Soc., Perkin Trans. 1*, 1992, 2285-2293.
106. Enantioselective Synthesis of Monocerin and Fusarentin Ethers: Antifungal and Insecticidal Fungal Metabolites, M.P. Dillon, T.J. Simpson and J.B. Sweeney, *Tetrahedron Lett.*, 1992, **33**, 7569-7572.
107. Determination by NMR Methods of the Structure and Stereochemistry of Astellatol, a New and Unusual Sesterterpene, I.H. Sadler and T.J. Simpson, *Magn. Reson. Chem.*, 1992, **30**, 518-523.
108. Characterisation of a Monoclonal Antibody to *cis*-Urocanic Acid: Detection of *cis*-Urocanic Acid in the Serum of Irradiated Mice by Immunoassay, A.M. Moodycliffe, M. Norval, I. Kimber and T.J. Simpson, *Immunology*, 1993, **79**, 667-672.
109. The Role of Histamine-like Receptors in Immunosuppression of Delayed Hypersensitivity Induced by *cis*-Urocanic Acid, J.W. Gilmore, M. Norval, and T.J. Simpson, *Photodermatol. Photoimmunol. Photomed.*, 1993, **10**, 273-277.
110. Biosynthesis of Colletodiol and Related Polyketide Macrodiolides in *Cytospora* sp ATCC 20502: Synthesis and Metabolism of Advanced Intermediates, J.A. O'Neill, T.J. Simpson and C.L. Willis, *J. Chem. Soc., Chem. Commun.*, 1993, 738-740.
111. Structures of Bartanol and Iso-bartanol, Novel Macrodiolide Metabolites from *Cytospora* sp ATCC 20502, K. Hanson, J.A. O'Neill, T.J. Simpson, C.L. Willis, *J. Chem. Soc., Perkin Trans. 1*, 1994, 2493-2497.
112. Biosynthetic Incorporation of ¹³C Labelled Ethyl 3,5-Dimethylorsellinate into Citreohydrindones, Metabolites of a Hybrid Strain, KO 0031, Derived from *Penicillium citreo-viride* B. IFO 6200 and 4692, S. Kosemura, H. Miyata, S. Yamamura, K. Albane and T.J. Simpson, *J. Chem. Soc., Perkin Trans. 1*, 1994, 135-139.
113. Biosynthesis of Astellatol, a Novel Rearranged Sesterterpenoid Metabolite of *Aspergillus variegator*, T.J. Simpson, *J. Chem. Soc., Perkin Trans. 1*, 1994, 3055-3056.
114. A Simple Enantioselective Synthesis of γ -Valerolactone, J.A. O'Neill, S.D. Lindell, T.J. Simpson and C.L. Willis, *Tetrahedron Asymmetry*, 1994, **5**, 117-118.

115. Synthesis of Early, Intermediate and Advanced Precursors for Studies of Polyketide Biosynthesis, T.J. Simpson, in "Synthesis and Applications of Isotopically Labelled Compounds", eds. J. Allen and R. Vosges, Wiley, 1995, 855-862.
116. Polyketide Biosynthesis, T.J. Simpson, *Chem. Ind.*, 1995, 407-411.
117. Polyketide Synthase Acyl Carrier Proteins from *Streptomyces*: Expression in *Escherichia coli*, Purification and Partial Characterisation, J. Crosby, D.H. Sherman, M. Bibb, T.J. Simpson and D.A. Hopwood, *Biochim. Biophys. Acta.*, 1995, **1251**, 32-40.
118. Synthesis of β -Keto and $\alpha\beta$ -Unsaturated N-Acetylcysteamine Thioesters, I.H. Gilbert, M. Ginty, J.A. O'Neill, T.J. Simpson, J. Staunton and C.L. Willis, *BioMed. Chem. Lett.*, 1995, **5**, 1587-1590.
119. Studies on the Stereoselectivity of the Osmylation of *cis*-Bicyclo[3.3.0]oct-6-enes, N. Broome, P.J. O'Hanlon, T.J. Simpson, R. Stephen and C.L. Willis, *J. Chem. Soc., Perkin Trans. 1*, 1995, 3067-3072.
120. Enantioselective Synthesis of the 13-Membered Macrolide Bartanol, J.A. O'Neill, S.D. Lindell, T.J. Simpson and C.L. Willis, *J. Chem. Soc., Perkin Trans. 1*, 1996, 637-644.
121. Biosynthesis of Norsolorinic Acid and Averufin: Substrate Specificity of Norsolorinic Acid Synthase, D.S.J. McKeown, C. McNicholas, T.J. Simpson and N.J. Willett, *J. Chem. Soc., Chem. Commun.*, 1996, 301-302.
122. Conserved Secondary Structure in the Actinorhodin Polyketide Synthase Acyl Carrier Protein from *Streptomyces coelicolor* A3(2), and the Fatty Acid Synthase Acyl Carrier Protein from *Escherichia coli*, M.P. Crump, J. Crosby, C.E. Dempsey, M. Murray, D.A. Hopwood and T.J. Simpson, *FEBS Letters*, 1996, **391**, 302-306.
123. Enantioselective Synthesis of Fusarentin Methyl Ethers: Insecticidal Metabolites of *Fusarium larvarum*, C. McNicholas, T.J. Simpson and N.J. Willett, *Tetrahedron Lett.*, 1996, **37**, 8053-8056.
124. Enzymatic and Chemical Methods for the Enantioselective Synthesis of Isotopically Labelled Amino Acids and Metabolic Intermediates, T.J. Simpson and C.L. Willis, Proceedings of the Chiral Europe '96 Symposium, Strasbourg, 1996, pp 49-55.
125. Biosynthesis of Polyketide-Terpenoid (Meroterpenoid) Metabolites Andibenin B and Andilesin A in *Aspergillus variegatus*, T.J. Simpson, S.A. Ahmed, C.R. McIntyre, F.E. Scott and I.H. Sadler, *Tetrahedron*, 1997, **53**, 4013-4034.
126. The Solution Structure of the Actinorhodin Polyketide Synthase Acyl Carrier Protein from *Streptomyces coelicolor* A3(2), M.P. Crump, J. Crosby, C.E. Dempsey, J.A. Parkinson, M. Murray, D.A. Hopwood and T.J. Simpson, *Biochemistry*, 1997, **36**, 6000-6008.
127. Cochliobolic Acid, a Novel Metabolite Produced by *Cochliobolus lunatus*, Inhibits Binding of TGF- α to the EGF Receptor in a SPA Assay, N. Robinson, T.M. Gibson, M.I. Chicarelli-Robinson, L. Cameron, P.J. Hylands, D. Wilkinson and T.J. Simpson, *J. Nat. Prod.*, 1997, **60**, 6-8.
128. Post-Translational Modification of Heterologously Expressed *Streptomyces* Type II Polyketide Synthase Acyl Carrier Proteins, R.J. Cox, T.S. Hitchman, K.J. Byrom, S.C. Findlow, J.A. Tanner, J. Crosby and T.J. Simpson, *FEBS Letters*, 1997, **405**, 267-273.
129. Enantioselective Synthesis of a Putative Hexaketide Intermediate in the Biosynthesis of the Squalestatins, T.J. Simpson, R.W. Smith, S.M. Westaway, C.L. Willis, A.D. Buss, R.J.P. Cannell, M.J. Dawson and B.A.M. Rudd, *Tetrahedron Lett.*, 1997, **38**, 5367-5370.
130. Biosynthesis of Xenovulene A[®]: Formation of a Cyclopentenone via a Unique Ring Expansion-Ring Contraction Mechanism, M.E. Raggatt, T.J. Simpson and M.I. Chicarelli-Robinson, *Chem. Commun.* 1997, 2245-2246.

131. Applications of Isotopic Methods to Secondary Metabolic Pathways, T.J. Simpson in "Topics in Current Chemistry" Vol. 195 "Biosynthesis – Polyketides and Vitamins", eds. F.J. Leeper and J.C. Verderas, Springer-Verlag, Berlin, 1997, pp 1-48.
132. Catalytic Self-Acylation of Type II Polyketide Synthase Acyl Carrier Proteins, T.S. Hitchman, J. Crosby, K.J. Byrom, R.J. Cox, T.J. Simpson, *Chem. Biol.*, 1998, **5**, 35-47.
133. Plant Polyketide Synthase: a Chalcone Synthase-Type Enzyme which Performs a Specific Condensation Reaction with Methylmalonyl-CoA in the Biosynthesis of C-Methylated Chalcones, J. Schröder, S. Raiker, T. Berger, J. Schmidt, A.M. Soares-Sello, E. Bardshiri, D. Strack, T.J. Simpson, M. Veit and G. Schröder, *Biochemistry*, 1998, **37**, 8417-8425.
134. Acylation of Streptomyces Type II Polyketide Synthase Acyl Carrier Proteins, J. Crosby, K.J. Byrom, T.S. Hitchman, R.J. Cox, M.P. Crump, I.S.C. Findlow, M.J. Bibb and T.J. Simpson, *FEBS Letters*, 1998, **433**, 132-138.
135. MCAT is not required for *In Vitro* Polyketide Synthesis in a Minimal Actinorhodin Polyketide Synthase from *Streptomyces coelicolor*, A.-L. Matharu, R.J. Cox, J. Crosby, K.J. Byrom and T.J. Simpson, *Chem. Biol.*, 1998, **5**, 699-711.
136. Wallemiol and Wallemione, Novel Caryophyllenes from the Toxigenic Fungus *Wallemia sebi*, M. Frank, J.C. Jeffrey, E. Kingston, M.O. Moss, M. Murray, T.J. Simpson and A. Sutherland, *Tetrahedron Lett.*, 1999, **40**, 133-136.
137. A General Synthesis of Homochiral β -Hydroxy-N-acetylcysteamine Thioesters, C. Le Sann, T.J. Simpson, D.I. Smith, P. Watts and C.L. Willis, *Tetrahedron Lett.*, 1999, **40**, 4093-4096.
138. Ketosynthase Domain Probes Identify Two Subclasses of Fungal Polyketide Synthase Genes, L.E.H. Bingle, T.J. Simpson and C.M. Lazarus, *Fungal Genetics and Biology*, 1999, **26**, 209-223.
139. Biosynthesis of XR587 (Streptopyrrole) in *Streptomyces rimosus* Involves a Novel Carbon-to-Nitrogen Rearrangement of a Proline-Derived Unit, M.E. Raggatt, T.J. Simpson and S.K. Wrigley, *Chem. Commun.* 1999, 1039-1040.
140. A Chain Initiation Common to Both Modular and Aromatic Polyketide Synthases, C. Bisang, P.F. Long, J. Cortés, J. Westcott, J. Crosby, A.-L. Matharu, R.J. Cox, T.J. Simpson, J. Staunton, and P.F. Leadlay, *Nature*, 1999, **401**, 502-505.
141. Structure Elucidation and Synthesis of (4S,5S, 6Z,8E)-5-hydroxydeca-6,8-dien-4-olide [S,S-Sapinofuranone B] – a Novel γ -lactone Metabolite of *Acremonium strictum*, S. Clough, M.E. Raggatt, T.J. Simpson, C.L. Willis, A. Whiting and S.K. Wrigley, *J. Chem. Soc., Perkin Trans. 1*, 2000, 2475-2481.
142. A Versatile Approach to the Total Synthesis of the Pseudomonic Acids, C. McKay, T.J. Simpson, C.L. Willis, A.K. Forrest and P.J. O'Hanlon, *Chem. Commun.* 2000, 1109-1110.
143. NMR Studies of Tautomerism in the Fungal Melanin Biosynthesis Intermediate 1,3,8-Trihydroxynaphthalene, T.J. Simpson and M.K.B. Weerasooriya, *J. Chem. Soc., Perkin Trans. 1*, 2000, 2771-2775.
144. *In Vivo* and *In Vitro* Biosynthetic Studies: Understanding and Exploiting Natural Pathways, T.J. Simpson, in "Biodiversity – New Leads for the Pharmaceutical and Agrochemical Industries", eds. S.K. Wrigley, M.A. Hayes, R. Thomas, E.J.T. Chrystal and N. Nicholson, Royal Society of Chemistry, Cambridge, 2000, pp 233-248.
145. Solid phase Synthesis of 4-Hydroxycinnamic Acid and its Derivatives for Potential Use in Combinatorial Chemistry: A Novel Route for the Synthesis of 4-Hydroxycinnamoyl Coenzyme A and NMDA Receptor Antagonists, B.J. McIntyre, F. Martínez Bermejo, S.K.

- Srivastava, S.M. Husbands, J.W. Lewis, J. Crosby and T.J. Simpson, *Combinatorial Chemistry and High Throughput Screening*, 2001, **4**, 111-114.
146. Design and Utility of Oligonucleotide Probes for Fungal Polyketide Synthases, T.P. Nicholson, C.M. Lazarus, B.A.M. Rudd, M.J. Dawson, T.J. Simpson and R.J. Cox, *Chem. Biol.*, 2001, **8**, 151-178.
147. Stereocontrolled Syntheses 2,4,5-Trisubstituted Tetrahydropyrans, E.H. Al-Mutairi, S. Crosby, J. Darzi, J.R. Harding, R.A. Hughes. C.D. King, T.J. Simpson, R.W. Smith and C.L. Willis, *Chem. Commun.*, 2001, 835-836.
148. Synthetic and Biosynthetic Studies on Macrocyclic Dilactones, J.A. O'Neill, T.J. Simpson and C.L. Willis, in "Synthesis and Applications of Isotopes and Isotopically Labelled Compounds", eds. U. Pleiss and R. Voges, Wiley, in press
149. *Streptomyces coelicolor* Phosphopantetheinyl Transferase: a Promiscuous Activator of Polyketide and Fatty Acid Synthase Acyl Carrier Proteins, R.J. Cox, J. Crosby, O. Daltrop, F. Glod, M. Jarzabek, T.P. Nicholson, T.J. Simpson, F. Soulas and J. Westcott, *J. Chem. Soc., Perkin Trans. 1*, 2002, 1644-1649.
150. Synthesis and Characterisation of Acyl Carrier Protein Bound Polyketide Analogues, C. Arthur, R.J. Cox, J. Crosby, M.M. Rahman, T.J. Simpson, F. Soulas, R. Spogli, A.E. Szafranska, J. Westcott and C.J. Winfield, *ChemBioChem*, 2002, 253-257.
151. Kinetic and Mechanistic Analysis of the Malonyl-CoA:ACP Transacylase from *Streptomyces coelicolor* Indicates a Single Catalytically Competent Serine Nucleophile at the Active Site, A.E. Szafranska, T.S. Hitchman, R.J. Cox, J. Crosby and T.J. Simpson, *Biochemistry*, 2002, **41**, 1421-1427.
152. Type 1 Rat Fatty Acid Synthase ACP Shows Structural and Biochemical Homology with Type II Acyl Carrier Proteins, M.A.C. Reed, M. Schweizer, A.E. Szafranska, C. Arthur, T.P. Nicholson, R.J. Cox, M.P. Crump, J. Crosby and T.J. Simpson, *OrgBiomolChem*, 2003, 463-471.
153. Characterisation of the Mupirocin Biosynthetic Gene Cluster from *Pseudomonas fluorescens* NCIMB 10856, A.K. El-Sayed, J. Hothersall, S.M. Cooper, E. Stephens, T.J. Simpson and C.M. Thomas, *Chem. Biol.*, 2003, **10**, 419-430.
154. First *In Vivo* Directed Biosynthesis of New Compounds by a Minimal Type II Polyketide Synthase: Evidence for the Mechanism of Chain length Determination, T.P. Nicholson, C. Winfield, J. Westcott, J. Crosby, T.J. Simpson and R.J. Cox, *Chem. Commun.*, 2003, 686-687.
155. Solution Structure and Dynamics of Oxytetracycline Polyketide Synthase Acyl Carrier Protein from *Streptomyces rimosus*, S.C. Findlow, C. Winsor, T.J. Simpson, J. Crosby and M.P. Crump, *Biochemistry*, 2003, **42**, 8423-8433.
156. Synthesis and Biosynthesis of the First PKS-free Intermediate in Monocerin Biosynthesis, L.C. Axford, T.J. Simpson and C.L. Willis, *Angew. Chem. Int. Ed.*, 2004, **43**, 727-730.
157. Two Approaches to the Synthesis of the Macrolide Colletotriene, D.M. Munoz, S.C. Passey, T.J. Simpson, C.L. Willis, J.B. Campbell and R. Rosser, *Austral. J. Chem.*, 2004, **57**, 645-649.
158. Fusarin C Biosynthesis in *Fusarium moniliforme* and *Fusarium venenatum*, Z. Song, R.J. Cox, C.M. Lazarus and T.J. Simpson, *ChemBioChem*, 2004, 1196-1203.
159. Expression, Purification and Preliminary X-Ray Diffraction Analysis of a Ketoreductase from a Type II Polyketide Synthase, W. Teartasin, C. Limpkin, R.J. Cox, J. Crosby, M.P. Crump, T.J. Simpson and A.T. Hadfield, *Acta Crystallographica, Section D*, 2004, **60**, 1137-1138

160. Rapid Cloning and Expression of a Fungal Polyketide Synthase gene Involved in Squalenstatin Biosynthesis, R.J. Cox, F. Glod, D. Hurley, C.M. Lazarus, T.P. Nicholson, B.A.M. Rudd, T.J. Simpson, B. Wilkinson and Y. Zhang, *Chem. Comm.*, 2004, 2260-2261.
161. The Crystal Structure of the Actinorhodin Polyketide (*actIII*) Reductase: Proposed mechanism for ACP and Polyketide Binding. A.T. Hadfield, C. Limpkin, W. Teartasin, T. J. Simpson, J. Crosby and M. P. Crump, *Structure*, 2004, 12, 1865-1875.
162. Mupirocin W, a Novel Pseudomonic Acid Produced by Targeted Mutation of the Mupirocin Biosynthetic Gene Cluster, S.M. Cooper, R.J. Cox, J. Crosby, M.P. Crump, J. Hothersall, W. Laosripaiboon, T.J. Simpson and C.M. Thomas, *Chem Comm.*, 2005, 1179-1181.
163. Tandemly Duplicated Acyl Carrier Proteins Which Increase Polyketide Antibiotic Production can Apparently Function Either in Parallel or in Series, A.S. Rahman, J. Hothersall, J. Crosby, T.J. Simpson and C. M. Thomas, *J. Biol. Chem.*, 2005, **280**, 6399-6408.
164. Shift to Pseudomonic Acid B Production in *Pseudomonas fluorescens* NCIMB 10856 by Mutation of Mupirocin Tailoring Genes *mupO*, *mupU* and *mupV*, S.M. Cooper, W. Laosripaiboon, J. Hothersall, A. K. El-Sayed, C. Winfield, J. Crosby, R. J. Cox, T. J. Simpson and C. M. Thomas, *Chem. Biol.*, 2005, **12**, 825-833.
165. Assembly Intermediates in Polyketide Biosynthesis: Enantioselective Synthesis of β -Hydroxycarbonyl Compounds, C. Le Sann, D. M. Munoz, N. Saunders, T. J. Simpson, D. I. Smith, F. Soulas, P. Watts and C. L. Willis, *OrgBiomolChem*, 2005, **3**, 1719-1728.
166. Self-Malonylation is an Intrinsic Property of a Chemically Synthesised Type II Polyketide Synthase Acyl Carrier Protein, C. J. Arthur, A. Szafranska, S. Evans, S. C. Findlow, S. G. Burston, P. Owen, I. Clark-Lewis, T. J. Simpson, J. Crosby and M. P. Crump, *Biochemistry*, 2005, **44**, 5414-5421.
167. The Malonyl Transferase Activity of Type II Polyketide Synthase Acyl Carrier Proteins, C. J. Arthur, A. E. Szafranska, J. Long, R. J. Cox, S. C. Findlow, T. J. Simpson, M. P. Crump and J. Crosby, *Chem. Biol.*, 2006, **13**, 587-596.
168. Catalytic Relationships between Type I and Type II Iterative Polyketide Synthases: The *Aspergillus parasiticus* Norsolorinic Acid Synthase, Y. Ma, L. H. Smith, Russell J. Cox, P. Beltran-Alvarez, C. J. Arthur and T. J. Simpson, *ChemBioChem.*, 2006, **7**, 1951-1958.
169. Synthesis of [1,2- $^{13}\text{C}_2$, ^{15}N]-L-Homoserine and Its Incorporation by the PKS-NRPS System of *Fusarium moniliforme* into the Mycotoxin Fusarin C, D. O. Rees, N. Bushby, R. J. Cox, J. R. Harding, T. J. Simpson and C. L. Willis, *ChemBioChem*, 2007, **8**, 46-50.
170. Mupirocin H, a Novel Metabolite Resulting from Mutation of the HMG-CoA Synthase Analogue, *MupH* in *Pseudomonas fluorescens*, J.-e. Wu, R. J. Cox, J. Crosby, M. P. Crump, J. Hothersall, T. J. Simpson, C. M. Thomas, and C. L. Willis, *Chem. Commun.*, 2007, 2040-2042..
171. Methods for the synthesis of carbon-13 labelled acids and esters, A. Jordan, L. C. Axford, J. R. Harding, Y. O'Connell, T. J. Simpson and C. L. Willis, *J. Label. Compd. Radiopharm.*, 2007, **50**, 338-341.
172. Biosynthesis of the 2-Pyridone Tenellin in the Insect Pathogenic Fungus *Beauveria bassiana*. K. L. Eley, L. M. Halo, Z. Song, H. Powles, R. J. Cox, A. M. Bailey, C. M. Lazarus, and T. J. Simpson, *ChemBioChem*, 2007, **8**, 289-297.
173. Mutational Analysis Reveals that all Tailoring Region Genes are Required for Production of Polyketide Antibiotic Mupirocin by *Pseudomonas fluorescens*, J. Hothersall, J.-e. Wu,

- A. S. Rahman, J. A. Shields, S. M. Cooper, E. Stephens, R.J. Cox, J. Crosby, C. L. Willis, T. J. Simpson and C. M. Thomas, *J. Biol. Chem.*, 2007, **282**, 15451- 15461.
174. An antibiotic produced by an insect-pathogenic bacterium suppresses host defenses through phenoloxidase inhibition. I. Eleftherianos, S. Boundy, S. A. Joyce, S. Aslam, J. W. Marshall, R. J. Cox, T. J. Simpson, D. J. Clarke, R. H. ffrench-Constant, and S. E. Reynolds. *Proc. Nat. Acad. Sci. USA*, 2007, **104**, 2419-2424.
 175. Characterisation of 3-Methylorcinolaldehyde Synthase (MOS) in *Acremonium strictum*: First Observation of a Reductive Release Mechanism During Polyketide Biosynthesis. A. M. Bailey, R. J. Cox, K. Harley, C. M. Lazarus, T. J. Simpson and E. Skellam, *Chem. Commun.*, 2007, 4053-4055.
 176. Dissecting the Component Reactions Catalysed by the Actinorhodin Minimal Polyketide Synthase, P. Beltran-Alvarez, R.J. Cox, J. Crosby and T. J. Simpson, *Biochemistry*, 2007, **46**, 14672-14681.
 177. A Mammalian Type I Fatty Acid Synthase Acyl Carrier Protein Domain Does Not Sequester Acyl Chains, E. Ploskon, C. J. Arthur, S. E. Evans, C. Williams, J. Crosby, T. J. Simpson and M. P. Crump, *J. Biol. Chem.*, 2008, **283**, 518-528.
 178. Authentic Heterologous Expression Of The Tenellin Iterative Polyketide Synthase Non-Ribosomal Peptide Synthetase requires co-expression with an enoyl reductase, L. M. Halo, J. W. Marshall, A. A. Yasaki, Z. Song, C. P. Butts, M.P. Crump, M. Heneghan, A.M. Bailey, T. J. Simpson, C. M. Lazarus and R.J. Cox, *ChemBioChem*, 2008, **9**, 585-594.
 179. Accumulation of Mupirocin H and Mupiric Acid During *In vivo* Mutational Analysis of the Mupirocin Gene Cluster Reveals Labile Points in the Biosynthetic Pathway: the "Leaky Hosepipe" Mechanism, J-e Wu, Y. O'Connell, J. A. Shields, R. J. Cox, J. Crosby, J. Hothersall, T. J. Simpson, C. M. Thomas and C. L. Willis *ChemBioChem*, 2008, **9**, 1500-1508.
 180. Effect of gamma irradiation on the antioxidants properties of *Nigella sativa*, K. F. Khattak, T. J. Simpson, Ihasnullah, *Food Chemistry*, 2008, **110**, 967-972. DOI. 10.1016.
 181. Polyketide Biosynthesis in Fungi, T. J. Simpson and R. J. Cox, in "Wiley Encyclopedia of Chemical Biology", ed. T. P. Begley, vol. 3, Wiley, Hoboken, 2009, pp736-746.
 182. An ACP Structural Switch. Conformational Differences Between the Apo and Holo Forms of the Actinorhodin Polyketide Synthase Acyl Carrier Protein, S. E. Evans, C. Williams, C. J. Arthur, S. G. Burston, T. J. Simpson, J. Crosby and M. P. Crump, *ChemBioChem*, 2008, **9**, 2424-2432. (DOI: 10.1002/cbic.200800180)
 183. A Cautionary Tale in Decanolid Synthesis, T. J. Simpson, F. Soulas and C. L. Willis, *Synlett*, 2008, 2196-2198. (DOI: 10.1055/s-2008-1078031)
 184. Late Stage Oxidations During the Biosynthesis of the 2-Pyridone Tenellin in the Entomopathogenic Fungus *Beauveria bassiana*. L. M. Halo, M. N. Heneghan, A. A. Yakasai, Z. Song, K. Williams, A. M. Bailey, R. J. Cox, C. M. Lazarus and T. J. Simpson, *J. Am. Chem. Soc.*, 2008, **130**, 17988-17996. (DOI: 10.1021/ja807052c)
 185. Meroterpenoids Produced by Fungi, R. Geris and T. J. Simpson, *Nat. Prod. Rep.*, 2009, **26**, 1063-1094.
 186. "Fungal Type I Polyketide Synthases", R. J. Cox and T. J. Simpson, in "Complex Enzymes in Microbial Natural Product Biosynthesis", ed. D. A. Hopwood, Methods in Enzymology, 2009, **459**, 50-78.
 187. Preliminary Kinetic Analysis of Acyl Carrier Protein:Ketoacylsynthase Interactions in the Actinorhodin Minimal Polyketide Synthase. P. Beltran-Alvarez, C. J. Arthur, R. J. Cox J.

- Crosby, M. P. Crump and T. J. Simpson *Mol. BioSyst.*, 2009, 511-518, DOI:10.1039/b821844g
188. Probing the Interactions of Early Polyketide Intermediates with the Actinorhodin ACP from *Streptomyces coelicolor* A3(2), S. E. Evans, C. Williams, C. J. Arthur, E. Płoskon, R. J. Cox, C. L. Willis, J. Crosby, T. J. Simpson, and M. P. Crump, *J. Mol. Biol.*, 2009, **386**, 511-528.
 189. Structure and Malonyl CoA:ACP Transacylase Binding of *Streptomyces coelicolor* Fatty Acid Synthase Acyl Carrier Protein, C. J. Arthur, C. Williams, K. Pottage, E. A. Płoskoń-Arthur, S. C. Findlow, S. G. Burston, T. J. Simpson, M. P. Crump, J. Crosby, *ACS Chem. Biol.*, 2009, **4**, 625-636.
 190. Phosphopantetheinylation and Specificity of Acyl Carrier Proteins in the Mupirocin Biosynthetic Cluster, J. A. Shields, A. S. Rahman, C. J. Arthur, J. Crosby, J. Hothersall, T. J. Simpson and C. M. Thomas, *ChemBioChem*, 2010, **11**, 248-255.
 191. ¹³C Labelling reveals Multiple Amination Reactions in the Biosynthesis of the Novel Polyketide Antibiotic Polyamine Antibiotic Zeamine from *Dickeya zeae*, J-e. Wu, H-B. Zhang, J-L. Zu, R. J. Cox, T. J. Simpson and L-H. Zhang, *Chem. Commun.*, 2010, **46**, 333-335.
 192. Type I Fungal Polyketides, R. J. Cox and T. J. Simpson, in “Comprehensive Natural Products Chemistry II”, L.N. Mander and H.-W. Lui, Eds vol. 1, Elsevier, Oxford, 2010, pp 347-383.
 193. Recognition of Intermediate Functionality by Acyl Carrier Protein over a Complete Cycle of Fatty Acid Biosynthesis. E. Płoskoń, C. J. Arthur, A. L. P. Kanari, C. Williams, J. Crosby, T. J. Simpson, C. L. Willis and M. P. Crump, *Chem. Biol*, 2010, **17**, 776-785. DOI 10.1016/j.chembiol.2010.05.024
 194. Mutation of Key Residues in the C-methyltransferase Domain of a Fungal Highly Reducing Polyketide Synthase. E. J. Skellam, D. Hurley, J. Davison, C. M. Lazarus, T. J. Simpson and R. J. Cox, *Mol. BioSyst.*, 2010, **6**, 680-682. DOI: 10.1039/B923990A.
 195. Solution Structure of an Acyl Carrier Protein Domain from a Fungal Type I Polyketide Synthase, P. Wattana-amorn, Pakorn, C. Christopher, E. Płoskoń, R. J. Cox, T. J. Simpson, J. Crosby and M. P. Crump, *Biochemistry*, 2010, **49**, 2186-2193. DOI: 10.1021/bi902176v
 196. The Anti MRSA antibiotic Mupirocin: resistance, synthesis and potential manipulation for new pharmaceuticals, C. M. Thomas, J. Hothersall, C. L. Willis and T. J. Simpson, *Nature Reviews Microbiol.*, 2010, **8**, 281-289. DOI:10.1038/nrmicro2278
 197. Heterologous Reconstruction of a Complete Functional Fungal Biosynthetic gene Cluster, M. N. Henegan, A. A. Yakasai, L. M. Halo, Z. Song, A. M. Bailey, R. J. Cox. T. J. Simpson and C. M. Lazarus, *ChemBioChem*, 2010, **11**, 1508-1512. DOI: 10.1002/cbic.201000259.
 198. Catalytic Role of the C-Terminal Domains of a Fungal Non-Reducing Polyketide Synthase, K. M. Fisch, E. Skellam, D. Ivison, R. J. Cox, A. M. Bailey, C. M. Lazarus and T. J. Simpson, *Chem. Commun.*, 2010, **46**, 5331-5333. DOI:10.1039/c0cc01162b.
 199. A natural plasmid uniquely encodes two biosynthetic pathways creating a potent antibiotic. D. Fukuda, A. S. Haines, Z. Song, A. Murphy, J. Hothersall, E. R. Stephens, R. Gurney, C. Riemer, R. Marshall, R. J. Cox, J. Crosby, C. L. Willis, T. J. Simpson and C. M. Thomas, *PLoS ONE*, 2011, **6**, in press.
 200. The Programming Role of *Trans*-acting Enoyl Reductases During Biosynthesis of Highly Reduced Fungal Polyketides, M. N. Heneghan, A. A. Yakasai, K. Williams, K. A. Kadir,

- W. Bakeer, K. M. Fisch, Z. Wasil, A. M. Bailey, T.J. Simpson, R.J. Cox and C. M. Lazarus, *Chem. Sci.*, 2011, **2**, in press.
201. Manipulation of quorum sensing regulation in *Pseudomonas fluorescens* NCIMB 10586 to increase mupirocin production. J. Hothersall, A. C. Murphy, Z. Iqbal, G. Campbell, E. R. Stephens, J'e. Wu, H. Cooper, S. Atkinson, P. Williams, J. Crosby, C. L. Willis, R. J. Cox, T. J. Simpson and C. M. Thomas, *Appl. Microbiol. Biotech.*, 2011, **89**, in press.
202. Novel Thiomarinol Antibiotics Active Against MRSA are Generated by Mutagenesis and Mutasynthesis of *Pseudoalteromonas* SANK73390. A. C. Murphy, D. Fukuda, Z. Song, J. Hothersall, R. J. Cox, C. L. Willis, C. M. Thomas and T. J. Simpson, *Angew. Chem. Int. Ed.*, 2011, **50**, in press.