



# JANICE R. ALDRICH-WRIGHT

## KEY RELEVANT RESEARCH PUBLICATIONS

(1994 TO MARCH 2011).

### *Patents*

1. Fenton, R.R. and **Aldrich-Wright, J.R.** Metal Complexes and Therapeutic uses thereof, Australian Provisional Patent, Application Number PR3302, Feb., (2001)
2. Fenton, R.R. and **Aldrich-Wright, J.R.** Metal Complexes and Therapeutic uses thereof, International Patent, Application Number PCT/AU02/00167, Oct., (2002)
3. **Aldrich-Wright, J.R.**, Jaramillo, D., Brodie, C. and Howard, W. Sequence Selective Compounds Australian Provisional Patent, Application Number PR905512, Oct. (2003)
4. **Aldrich-Wright, J.R.**, Jaramillo, D., Brodie, C. and Howard, W. Taleb, R. Sequence Selective Compounds, International Patent, PCT/AU2004/001368, Oct. (2004)

### *Refereed Articles and Monographs:*

1. **Aldrich-Wright, J. R.** Chiral Discrimination Processes in Some Metal Chelate Systems of Biological Interest, *Journal and Proceedings of the Royal Society of New South Wales*, (1994), **127**, 155-156.
2. **Aldrich-Wright, J. R.**, Greguric, I., Vagg, R. S., Vickery, K. and Williams, P. A. The Development of DNA-Immobilised Chromatographic Stationary Phases for Optical Resolution and DNA-affinity Comparison of Metal Complexes, *J. Chrom. A.*, (1995), **718**, 436-443.
3. **Aldrich-Wright, J. R.**, Newman, P. D., Rao, K. R. N., Vagg, R. S., and Williams, P. A. (1995) Chiral Metal Complexes. 42. Reversed-phase High Performance Liquid Chromatographic Separation of Racemic Dipeptides as Their Ternary Co(III) Complexes With a Chiral Triamine. *J. Chrom.*, (1995), **693**, 366-370.
4. **J. Aldrich-Wright**, Vagg, R. S., and Williams, P. A. N<sub>4</sub>-Tetradentate Ligand Design, *Coord. Chem. Rev.*, (1997), **166**, 361-389.
5. Greguric, I., **Aldrich-Wright, J. R.** and Collins, J. G. A <sup>1</sup>H NMR Study of the Binding of Δ-[Ru(phen)<sub>2</sub>DPQ]<sup>2+</sup> to the Hexanucleotide d(GTCGAC)<sub>2</sub>-Evidence for Intercalation From the Minor Groove, *J. Am. Chem. Soc.*, (1997), **119**, 3621-3622.
6. Rutherford, T. J., Pellegrini, P. A., **Aldrich-Wright, J. R.**, Junk, P. C. and Keene, F. R. Isolation of Enantiomers of a Range of Tris(bidentate)ruthenium(II) Species Using Chromatographic Resolution and Stereoretentive Synthetic Methods, *Eur. J. Inorg. Chem.*, (1998), 1677-1688.
7. Collins, J. G., Sleeman, A. D., **Aldrich-Wright, J. R.**, Greguric, I. and Hambley, T. W. A <sup>1</sup>H NMR Study of the Binding of Ruthenium(II) Polypyridyl Complexes, *Inorg. Chem.* (1998), **37**, 3133-3141.
8. **Aldrich-Wright, J. R.**, Greguric, I. D., Pellegrini, P. A., Lau, C. H. Y. and Collins, J. G. Transition metal complexes as probes for DNA, *Recent Res. Devel. Inorg. Chem.*, (1998), **1**, 13-37.

9. Collins, J. G., **Aldrich-Wright, J. R.**, Greguric, I. D. and Pellegrini, P. A. Binding of the  $\Delta$ - and  $\Lambda$ -enantiomers of  $[\text{Ru}(\text{dmphen})_2\text{DPQ}]^{2+}$  to the hexanucleotide  $\text{d}(\text{GTCGAC})_2$ , *Inorg. Chem.* (1999), **38**, 5502-5509.
10. Collins, J. G., Rixon, R.M. and **Aldrich-Wright, J. R.** (2000), Interaction of  $[\text{Pt}(\text{en})(\text{phen})]^{2+}$  and  $[\text{Pt}(\text{en})(\text{phi})]^{2+}$  with the hexanucleotide  $\text{d}(\text{GTCGAC})_2$ : evidence for minor groove binding, *Inorg. Chem.* **39**, 4377-4378.
11. Greguric, A., Greguric, I. D., Hambley, T. W., **Aldrich-Wright, J. R.** and Collins, J. G. (2002) Minor groove intercalation of  $\Delta$ - $[\text{Ru}(\text{Me}_2\text{phen})_2\text{dppz}]^{2+}$  to the hexanucleotide  $\text{d}(\text{GTCGAC})_2$ . *Journal of the Chemical Society, Dalton Transactions*, (6), 849-855.
12. **Aldrich-Wright, J. R.**, Fenton, R. F., Greguric, I. D., Hambley, T. W. and Williams, P. A. (2002) The stereospecific synthesis of  $\Delta$ - $\alpha$ -{dipyrido[3,2-a:2'3'-c](6,7,8,9-tetrahydro)phenazine[N,N'-di(2-picolyl)-2,5-dimethyl-2S,5S-diaminocyclohexane]ruthenium(II)} and related  $\beta$ -isomers. *Journal of the Chemical Society, Dalton Transactions*, (24), 4666-4671.
13. Pellegrini, P. A. and **Aldrich-Wright, J.R.** (2003) Evidence for chiral discrimination of Ruthenium(II) polypyridyl complexes by DNA. *Dalton Trans*, 176-183. (IF: 3.003)
14. Beck, J. L., Gupta, R., Urathamakul, T., Williamson, N., Sheil, M. M., **Aldrich-Wright, J.R.** and Ralph, S. F. (2003) Probing DNA selectivity of ruthenium metallointercalators using ESI mass spectrometry. *Chem. Comm.*, 626-627. (IF: 4.426)
15. **Aldrich-Wright, J.R.**, Williams, P.A. and Vagg, R.S. (2003) HPLC separation of diastomeric metal complexes of the form  $\Delta$ ,  $\Lambda$ - $[\text{Ru}(\text{diimine})_2(\text{aminoacidate})]^{n+}$ . *Aust. J. Chem.*, 56, 1193-2000. (IF: 1.456)
16. Brodie, C., Collins, J.G. and **Aldrich-Wright, J.R.**, (2004) The biological activity of some square-planar platinum(II) metallointercalators. *Dalton Transactions*, 1145 – 1152. (IF: 3.003)
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18. Urathamakul, T.; Beck, J. L.; Sheil, M. M.; **Aldrich-Wright, J. R.**; Ralph, S. F. (2004) A mass spectrometric investigation of non-covalent interactions between ruthenium complexes and DNA, *Dalton Transactions.*, 2683-2690. (IF: 3.003)
19. Jaramillo, D., Liu, O., **Aldrich-Wright, J.** and Tor. Y. (2004) Synthesis of *N*-Methylpyrrole and *N*-Methylimidazole Amino Acids Suitable for Solid-Phase Synthesis, *Journal of Organic Chemistry*, **69**, 8151-8153. (IF: 3.675)
20. Gupta, R; Beck, J. L.; Ralph, S. F.; Sheil, M. M.; **Aldrich-Wright, J. R.** (2004) Comparison of the binding stoichiometries of positively charged DNA-Binding drugs using positive and negative ion electrospray ionization mass spectrometry, *Journal of the American Society of Mass Spectrometry*, **15**, 1382-139. (IF: 3.625)
21. Jaramillo, D., Buck, D. J., Collins, J. G., Fenton, R. R., Stootman, F. H., Wheate, N. J. and **Aldrich-Wright, J. R.** (2006) Synthesis, characterisation and biological activity of chiral platinum(II) complexes, *European Journal of Inorganic Chemistry*, 839–849. (IF: 2.514)
22. Jaramillo, D, Wheate, N. J., Ralph, S. F., Howard, W. A., Tor, Y and **Aldrich-Wright, J. R.** (2006) Polyamide platinum anticancer complexes designed to target specific DNA sequences, *Inorganic Chemistry*, **45**, 6004-6013. (IF: 3.851)
23. Brodie, C. R., Turner, P., Wheate, N. J. and **Aldrich-Wright, J. R.** (2006) (4,7-dimethyl-1,10-phenanthroline)(ethylenediamine)platinum(II) dichloride tris(deuterium oxide) solvate, *Acta Crystallographica Section E*, E62, m3137-m3139. (IF: 0.581)
24. Stootman, F. H., Fisher, D. M., Rodger, A. and **Aldrich-Wright, J. R.** (2006) Improved curve fitting procedures to determine equilibrium binding constants, *The Analyst*, **131**, 1145-1151. (IF: 2.858)

25. Jaramillo, D., Junk, P. C., Brodie, C. R., and **Aldrich-Wright, J. R.** (2006) Chloro(dimethyl sulfoxide-kS)[(1*R*,3*S*)-1,2,2-trimethylcyclopentane-1,3-diamine-k2N,N']platinum(II) trichloro(dimethyl sulfoxide-kS)platinum(II), *Acta Crystallographica Section E*, E62, m3377-m3379. (IF: 0.581)
26. Yousouf, S. J., Brodie, C. R., Wheate, N. J. and **Aldrich-Wright, J. R.** (2007) Synthesis of a heteronuclear ruthenium(II)-platinum(II) complex linked by L-cysteine methyl ester, *Polyhedron*, **26**, 318-328. (IF: 1.958)
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28. Still, B., Anil Kumar, P. G., **Aldrich-Wright, J. R.** and Price, W. S. (2007) <sup>195</sup>Pt NMR—theory and application, *Chemical Society Reviews*, **36**, 665-686. (IF: 13.747)
29. Kemp, S., Wheate, N. J., Stootman, F. H. and **Aldrich-Wright, J. R.** (2007) The host-guest chemistry of proflavine with cucurbit[6,7,8]urils, *Supramolecular Chemistry*, **19**, 475 - 484. (IF: 1.861)
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31. Wheate, N.J., Brodie, C. R., Collins, J. G., Kemp, S. and **Aldrich-Wright, J. R.** (2007) DNA intercalators in cancer therapy: Organic and inorganic drugs and their spectroscopic tools of analysis, *Mini Reviews in Medicinal Chemistry*, **7**, 627-648. (IF: n/a)
32. **Aldrich-Wright, J. R.**, Fenton, R. R., Leverett, P., Stephens, F. S., Williams, P. A., Vagg, R. S. (2007) The synthesis and structural analysis of *cis*-β-[[1,6-di(2'-pyridyl)-2,5-dibenzyl-2,5-diazahexane](1,2-benzoquinone diimine)]ruthenium(II)} and related complexes, *Journal of Coordination Chemistry*, **60**, 2015-2034 (IF: 1.003)
33. Kemp, S., Wheate, N.J., Buck, D.P., Nikac, M., Collins, J.G., **Aldrich-Wright, J. R.**, (2007) The effect of ancillary ligand chirality and phenanthroline functional group substitution on the cytotoxicity of platinum-based metallointercalators. *Journal of Inorganic Biochemistry*. **101**, 1049-1058. (IF: 2.423)
34. Wheate, N. J., Taleb, R. I. Krause-Heuer, A. M., Cook, R. L., Wang, S., Higgins, V. J. and **Aldrich-Wright, J. R.** (2007) Novel platinum(II)-based anticancer complexes and molecular hosts as their drug delivery vehicles, *Journal of the Chemical Society, Dalton Transactions, Invited paper*, 5055-5064. (IF: 3.003)
35. Kemp, S., Wheate, N.J., Wang, S., Collins, J. G., Ralph, S. F., Day A. I., Higgins, V. J. and **Aldrich-Wright, J. R.** (2007) Encapsulation of platinum(II)-based DNA intercalators within cucurbit[6,7,8]urils. *Journal of Biological Inorganic Chemistry* **12**, 969-979 (IF: 3.224)
36. Brodie, C. R. and **Aldrich-Wright, J. R.** (2007) Synthesis of flexible bisintercalating ruthenium(II) complexes, *European Journal. Inorganic. Chemistry* 4781-4783. (IF: 2.514)
37. Wheate, N. J., Kumar, P. G. A., Torres, A. M., **Aldrich-Wright, J. R.** and Price, W. S. (2008) Examination of Cucurbit[7]uril and Its Host-Guest Complexes by Diffusion Nuclear Magnetic Resonance. *Journal of Physical Chemistry B*, **112**, 2311-2314. (IF: 3.265)
38. Talib, J., Green, C., Davis, K. J., Urathamakul, T., Beck, J. L., **Aldrich-Wright, J. R.** and Ralph, S. F. (2008) A comparison of the binding of metal complexes to duplex and quadruplex DNA *Dalton Transactions*, 1018-1026. (IF: 3.003)
39. Kemp, S., Pisani, M., Wheate, N.J. and **Aldrich-Wright, J.R.** (2008) Degradation of bidentate coordinated platinum(II)-based DNA intercalators by reduced L-glutathione. *Journal of Medicinal Chemistry* **51**, 2787-2794. (IF: 4.097)
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41. Urathamakul, T.; Waller, D. J.; Beck, J. L; **Aldrich-Wright. J. R.**; Ralph, S. R. (2008) A Comparison of Mass Spectrometry and other Techniques for Probing Interactions Between Metal Complexes and DNA. *Inorganic Chemistry*, **47**, 6621-6632 (IF: 3.911)

42. Krause-Heuer, A.; Wheate, N.; Tilby, M.; Pearson, D.; Ottley, C.; **Aldrich-Wright, J.R.** (2008) Substituted  $\beta$ -cyclodextrin and calix[4]arene as encapsulatory vehicles for platinum(II)-based DNA intercalator. *Inorganic Chemistry*. (2008), **47**, 6880-6888. (IF: 3.911)
43. Krause-Heuer, A. M.; Grant, M. P.; Orkey, N.; **Aldrich-Wright, J. R.** (2008) Drug delivery devices and targeting agents for platinum(II) anticancer complexes, *Australian Journal of Chemistry*. Invited paper 61, 675-681 (IF:1.895)
44. van Holst, M, Le Pevelen, **D. Aldrich-Wright, J.R.** (2008) Terpyridineplatinum(II) Incorporation in Sequence Selective Polyamides by Solid Phase Techniques, *European Journal of Inorganic Chemistry* 29, 4608-4615. (IF: 2.514)
45. Fisher, D. M.; Fenton, R. R.; **Aldrich-Wright, J.R.** (2008) *In vivo* studies of a platinum(II) metallointercalator. *Chemical Communications*, **43**, 5613-5615. (IF: 4.426)
46. Wang, S.; Wright, E.P.; **Aldrich-Wright J.R.**; Higgins, V.J. (2008) A novel platinum anticancer drug modulates distinct transcriptional and cellular responses compared to cisplatin in *Saccharomyces cerevisiae*. *The Proceedings of Australian Society for Biochemistry and Molecular Biology*, 40, 97. (IF: N/A)
47. Grant, M.P.; Wheate, N.J.; **Aldrich-Wright, J. R.** (2008) Diffusion coefficient of cucurbit[n]urils (n = 6 or 7) at various concentrations, temperatures and pH. *Journal of Chemical & Engineering Data*. DOI: 10.1021/jc800347u (IF: 1.518)
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49. Pisani, M. J.; Wheate, N. J.; Keene, R. F.; **Aldrich-Wright, J. R.**; Collins, J. G. (2009) Anionic PAMAM dendrimers as drug delivery vehicles for transition metal-based anticancer drugs. *Journal of Inorganic Biochemistry*. 10.1016/j.jinorgbio.2008.11.014 (IF: 3.911)
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52. Talib, J.; Beck, J. L.; Urathamakul, T.; Nguyen, C. D.; **Aldrich-Wright, J. R.**; Mackay, J. P.; Ralph, S. F. (2009) A mass spectrometric investigation of the ability of metal complexes to modulate transcription factor activity. *Chemical Communications*, (37), 5546-5548. (ERA A\*)
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55. Harper B, Krause-Heuer A, Grant M, Manohar M, Garbutcheon-Singh K, **Aldrich-Wright J**, (2010), Advances in platinum chemotherapeutics, *Chemistry : A European Journal*, vol 16, no. 23, pp 7064-7077, (IF:5.454 ERA A\*)
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### ***Published Conference Abstracts***

1. Aldrich-Wright, J. R. Wheate, N. J., Taleb, R. I. (2007) Novel Platinum(II)-Based anticancer drugs; metallointercalators and DNA sequence selective agents, *J. Biol. Inorg. Chem.*, 12 (Suppl 1), S16. (IF: 3.303)
2. van Holst, M. Brodie, C.R., Wheate, N. J. Aldrich-Wright, J. R., Platinum metallointercalators in solid phase synthesis, *J. Biol. Inorg. Chem.*, 12 (Suppl 1), S23. (IF: 3.303)
3. Krause-Heuer, A. M. Wheate, N. J. Aldrich-Wright, J. R., Use of molecular hosts in the drug delivery of platinum(II)-based DNA intercalating agents, *J. Biol. Inorg. Chem.*, 12 (Suppl 1), S23. (IF: 3.303)
4. Wright, E. P., Aldrich-Wright, J. R., Wheate, N. J. Dawes. I. W. Higgins, V. J. (2007) Molecular mechanisms involved in the *Saccharomyces cerevisiae* response to the novel anticancer compounds 56MESS, *J. Biol. Inorg. Chem.*, 12 (Suppl 1), S51. (IF: 3.303)
5. Wright, E., Aldrich-Wright, J.R., Wheate, N.J., Dawes, I.W. and Higgins, V.J. (2007) The use of *Saccharomyces cerevisiae* deletion mutant library to elucidate the molecular mechanisms involved in the eukaryote response to the novel platinum anticancer compound 56MESS. *Yeast* 24:S139. (IF 2.3)
6. Wang, S., Cook, R.L., Aldrich-Wright, J.R., and Higgins, V.J. (2007) Structure-cytotoxicity relationships of novel platinum anticancer drugs in cancer cells and *Saccharomyces cerevisiae*. *Yeast* 24:S155. (IF 2.3)