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ACCEPTED MANUSCRIPT

The cytotoxicity of some phenanthroline-based antimicrobial copper(II) and ruthenium(II) complexes

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Keywords: Antibacterial; Copper; Phenanthroline; Ruthenium

Highlights:

- Cytotoxicity of antimicrobial metal complexes was investigated
- Copper complexes show high cytotoxicity and induce necrotic cell death in renal cells
- Copper complex cytotoxicity may be attributable to reactive oxygen species accumulation
- Ruthenium complexes were potent as antimicrobials but also comparably non-cytotoxic
- Lower *in vitro* genotoxicity than other DNA binding compounds *e.g.* cisplatin or etoposide

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