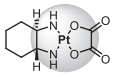
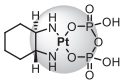
# Metal Chelators for Chemotherapy

## Introduction

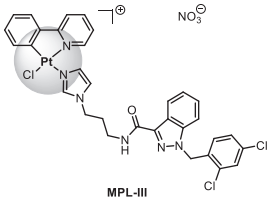
Noble metal complexes have long been known for their anticancer activity due to destruction of DNA. Over the past two decades, research has expanded their potential mechanisms of action to include immunotherapy, radical sensitization, and targeted deactivation of the proteins critical to cancer cell survival.[1,2] A wide range of complexes incorporating metals such as gold, platinum, ruthenium, and iridium have been developed for these purposes.[2-4] The design of the metal-binding ligand is pivotal in enhancing the selectivity of these complexes for malignant cells, while incorporating chemical attachment sites allows for conjugation with specific protein ligands, facilitating selective delivery of metal ions to their intended targets.[4] The ligands are also useful for carrying out metalocatalytic reactions.



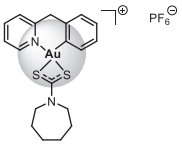
**Oxaliplatin**
against metastatic colorectal carcinoma
FDA approved 2002
*Sanofi*



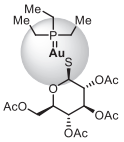
**Imifoplatin (PT-112)**
Phase 2 trials against cancers
*SciClone* and *Promontory*



**MPL-III**
mitochondrial depolarization and cell death
*Inorg. Chem Front.* **2020**, *7*, 4010

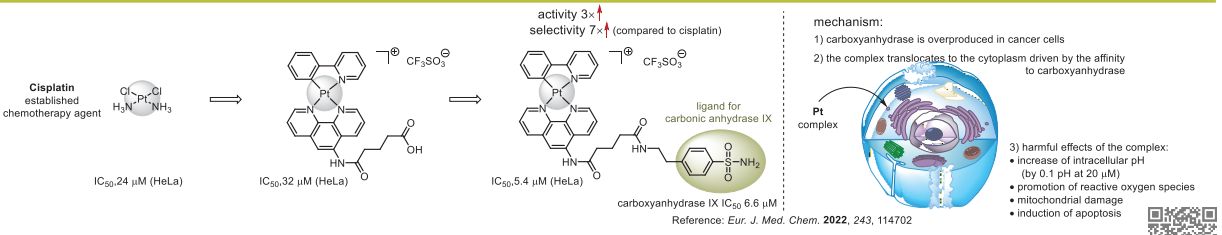


**2G**
immunogenic cell death inducer
*J. Am. Chem. Soc.* **2025**, *147*, 7908



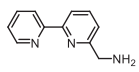
**Auranofin**
Phase 2 trials against rheumatoid conditions
*GlaxoSmithKline*

## Case study




Reference: *Eur. J. Med. Chem.* **2022**, *243*, 114702

## We offer: over 100 biaryl metal chelators from stock on 5-10 gram scale. Also, check our 1,2-diamine scaffolds here:



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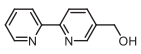

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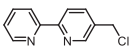

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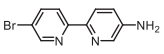

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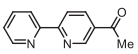

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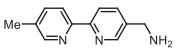

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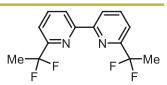

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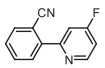

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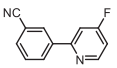

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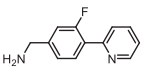

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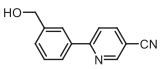

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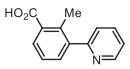

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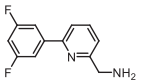

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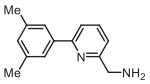

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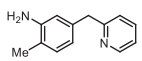

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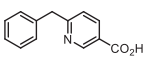

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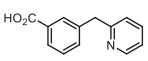

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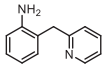

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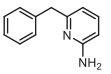

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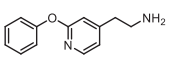

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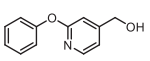

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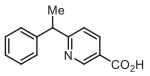

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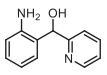

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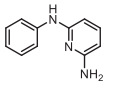

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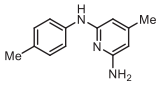

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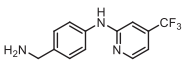

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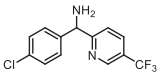

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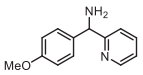

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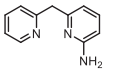

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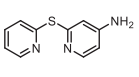

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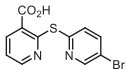

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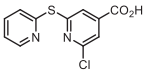

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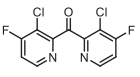

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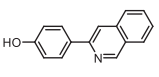

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## References


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2. G. Moreno-Alcántar et al. *Angew. Chem. Int. Ed.* **2023**, *62*, e202218000.
3. J. Zou et al. *Chem. Sci.* **2025**, *16*, 6160.
4. J. Yang et al. *Eur. J. Med. Chem.* **2022**, *243*, 114702.



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