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Metallo drugs as protein modulators

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Stellingen

Accompanying the thesis

Metallo drugs as Protein Modulators

Andreia de Almeida

1. “Nothing in life is to be feared, it is only to be understood. Now is the time to understand more, so that we may fear less.”

~Marie Curie~

2. Aquaporins (AQP) are important drug targets but the investigation of their function still remains a challenge.

3. The potent inhibitory effect of Au(III) complexes against AQP makes them promising for future *in vivo* studies, as anticancer drugs.

4. Conformational changes observed in aquaporins upon metal binding are crucial for the mechanism of inhibition.

5. Glycerol is an underestimated substrate for energy production in cancer cells.

6. Knowledge of the physiological mechanisms of AQP gating will enable the discovery (and optimization) of selective AQPs inhibitors.

7. The *ex vivo* model precision-cut tissue slices is a powerful model to help disclose the role of aquaporins in the liver and other organs and tissues.

8. The higher toxicity of metal complexes bearing an acetylated thioglucose can be ascribed to increased uptake.

9. The presence of two or more metal centres in a compound can improve the cytotoxic properties and add useful properties, such as fluorescence.

10. “Aerodynamically, the bumble bee shouldn’t be able to fly, but the bumble bee doesn’t know it so it goes on flying anyway.”

~Mary Kay Ash~

11. “Quem não sabe é como quem não vê.” (“Those that do not know are like those who cannot see”)

~Popular Portuguese saying~