Introduction

The Bioorganic and Medicinal Chemistry Group (LQBM) was founded in 2009 at the University of Campinas – UNICAMP, Brazil, and is focused on the synthesis, characterization and biological applications in pharmacology and medicine of new metal complexes. More specifically, the group has worked on the synthesis of silver, platinum, palladium and copper complexes with ligands which already possess antibacterial, anti-inflammatory, antiviral and anticancer activities. Some of our recent results about the synthesis, characterization, and antibacterial, antiviral and antitumor assays of silver, platinum and palladium complexes with nucleobases, aminoadamantanes and sulfa drugs are presented in this poster. Furthermore, we have developed some projects in collaboration with other research groups during the last decade. The projects include the development of novel devices for sustained release of metallopharmaceutical agents (UNIARA, Brazil), and studies about novel anticancer drugs for treatment of non-melanoma skin cancer in (Faculty of Pharmaceutical Sciences and Faculty of Pharmaceutical Sciences – UNICAMP, Brazil) Novel antiviral agents focused on arboviruses have also been developed in collaboration researchers from Federal University of Uberlandia – UFU, Brazil.

Recent publications


Acknowledgements

Bioinorganic and Medicinal Chemistry Laboratory at the Institute of Chemistry-UNICAMP: Synthesis and Biological Assays of New Complexes of Silver(I), Gold(I), Platinum(II), Palladium(II) and Copper(II) with Bioactive Ligands

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A Silver(I) complex with 5-fluorouracil

Antiproliferative activity over a panel of tumor cells

<table>
<thead>
<tr>
<th>Samples</th>
<th>Cells, GI_{50} (µg mL^{-1})</th>
</tr>
</thead>
<tbody>
<tr>
<td>9fu</td>
<td>0.78 0.06 0.27 0.17 0.085 0.51 0.091 0.42 0.19 0.087</td>
</tr>
<tr>
<td>Ag-9fu</td>
<td>1.13 &lt;0.25 0.29 0.46 2.28 0.39 0.25 &lt;0.25</td>
</tr>
<tr>
<td>AgNO_{3}</td>
<td>3.37 1.66 3.21 3.56 5.75 2.99 2.88 2.87 0.48 2.7</td>
</tr>
</tbody>
</table>

2: U251, glioma; m: MCF-7, breast; a: NCI-ADR/RES, ovarian resistant; t: 786-O, renal; 4: NCI-H460, lung; p: PC-3, prostate; o: OVCAR-3, ovarian; h: HT29, colon; k: K562, leukemia; q: HaCat; immortal keratinocyte

A Silver(I) complex with nimesulide

In vitro and in vivo activities over skin cell carcinoma

Silver, Platinum and Palladium complexes with aminoadamantanes

Antiviral activities over Chikungunya virus