VISUAL DETECTION OF PLATINATED DNA LESIONS FROM A CLICKABLE CISPLATIN PROBE USED AS DIAGNOSTIC TOOL OR TO IDENTIFY SYNERGISTIC TREATMENTS

The present invention relates to new compound for visualizing DNA-platinum crosslink, and its use as a research tool and in screening method for identifying candidate drug to be used in combination with platinating compounds such as cisplatin, carboplatin, and oxaliplatin. This invention also relates to a method for predicting a resistance or sensitivity of a tumor in a patient to a platinum drug.

APPLICATION

A kit as a diagnostic tool, in particular for:
- Visualizing platinated DNA crosslinks in cells or for recovering platinum-bound DNA.
- Identifying or screening a molecule capable of preventing or delaying the occurrence of resistance to platinum drugs or to overcome or reduce resistance to platinum drugs or for predicting a sensitivity or resistance to a platinum drug in a patient.

PROBLEM ADDRESSED

Platinating compounds such as cisplatin, carboplatin, and oxaliplatin are still front-line clinical therapies and constitute part of the treatment regimen for patients with many types of cancers, including head and neck, testicular, ovarian, cervical, lung, colorectal and relapsed lymphoma.

Patients usually have a good initial response to platinating drugs-based chemotherapy but later relapse, because the development of drug resistance, either acquired or intrinsic, markedly reduces its clinical effectiveness.

COMPETITIVE ADVANTAGES

- Visual detection by fluorescence microscopy
- Non-invasive procedure from urine allowing easily collection
- Cost-effective and fast solution
- Identification of synergic treatment (other drug + platinated drug)

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DEVELOPMENT STATUS

The method may comprise a previous step of providing a tumor sample and a histologically matched normal tissue from the patient (Optimisation and validation). The next step should be the Optimisation and validation on retrospective samples including FFPE and body fluid samples.

IP STATUS & OWNERS


WHAT ARE WE LOOKING FOR?

Interested industrial partners for collaboration to further validate the clinical studies on patient tumors - licensing opportunities for exploitation.

PUBLICATIONS


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