

[Open Peer Review on Qeios](#)

Liposomal NDDP

National Cancer Institute

Source

National Cancer Institute. *Liposomal NDDP*. NCI Thesaurus. Code C1383.

A synthetic liposomal formulation of bis-neodecanoate diamminocyclohexane platinum (NDDP), a third-generation platinum complex analogue of cisplatin, with potential antineoplastic activity. After displacement of the 2 long-chain aliphatic leaving groups (neodecanoic acid), platinum diamminocyclohexane (DACH) complexes become highly reactive and alkylate macromolecules, forming both inter- and intra-stranded DNA cross-linkings and inhibiting DNA synthesis, which results in tumor cell cytotoxicity. Because DNA mismatch-repair (MMR) complexes do not recognize DACH-platinum adducts, DNA repair mechanisms are inhibited, overcoming limitations observed with other platinum-based agents. In addition, the liposomal encapsulation improves the bioavailability of NDDP and reduces its toxicity profile.