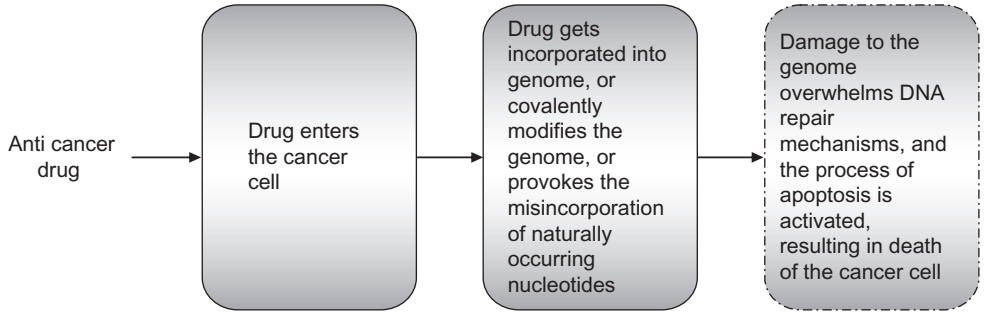
gemcitabine (5,6), and cisplatin (7). Cladribine, which selectively kills lymphocytes, has the unique distinction of being used to treat two very different diseases. Cladribine is used to cure leukemia (hairy cell leukemia (8)) and to treat multiple sclerosis, two diseases with a pathology involving lymphocytes.

evidence suggests that damage to tumor cells, as caused by these drugs, causes the release of tumor antigens, facilitating capture of the antigens by immune cells. The capture of tumor antigens by immune cells is the first step in the immune response against cancer.



Small-molecule anticancer drugs include drugs that disrupt the cytoskeleton, such as the taxanes. The taxanes include paclitaxel and docetaxel, which are used for treating breast cancer, ovarian cancer, non-small cell lung cancer (NSCLC), and prostate cancer (9).

Drugs that directly kill tumor cells do so in a manner independent of the immune system. However, as indicated below,

But it is usually the case that, where there is tumor, the immune system fails to mount an effective response against the tumor.

Most tumors are not efficiently rejected, even when tumor antigens are recognized by $CD4^+$ T cells and $CD8^+$ T cells (10). In vitro experiments show that these T cells can recognize tumor cells and kill them, but in vivo, these T cells are prevented from gaining access to the tumors. According to Preynat-Seauve

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