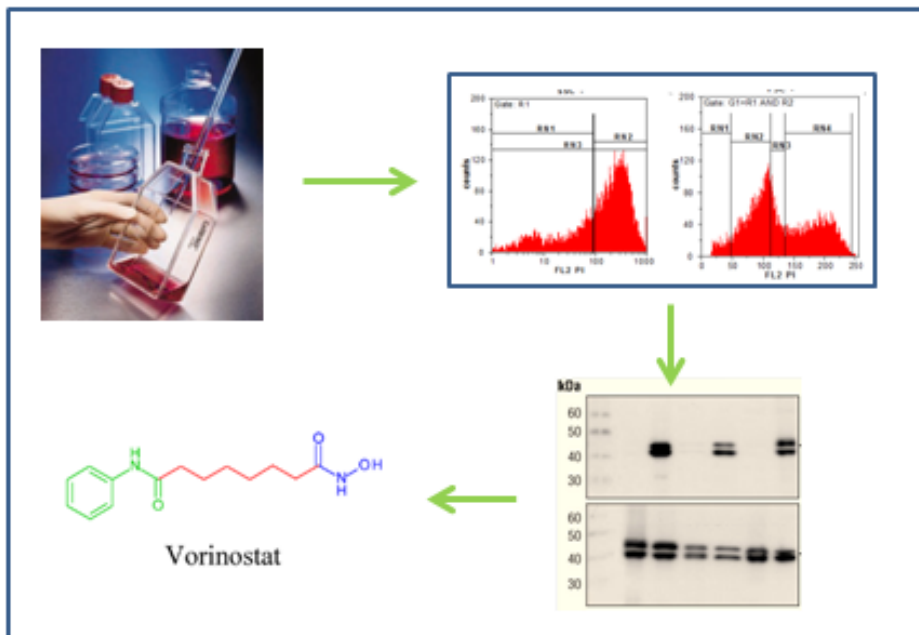


## Strategies to overcome chemo-resistance in human urothelial cancer cell lines



Urothelial bladder cancer (UBC) is the 7th most common cancer in men and 17th most common in women. Cisplatin-based treatment, including gemcitabine plus cisplatin (GC) and methotrexate, vinblastine, doxorubicin, and cisplatin (MVAC), is the most commonly used chemotherapy for bladder cancer patient. Unfortunately, tumors become progressively unresponsive after long term exposure to cisplatin.

The aim of this project is to find strategies to overcome cisplatin-resistance in human urothelial bladder cancer cell lines. The first step of this project is to establish a cellular model of human urothelia cancer by weekly treated with cisplatin over a period of around 30 weeks to generate resistant subclones. And then, the sensitive and resistant cells will be analysed for differential gene expression on RNA and protein levels to reveal the mechanisms of resistance. After this step, natural compounds and small-molecules inhibitors such as kinase inhibitors and epigenetic modifiers will be analysed to develop strategies to overcome and to prevent cisplatin resistance.

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