Research paper on cancer drug accorded 'VIP' status

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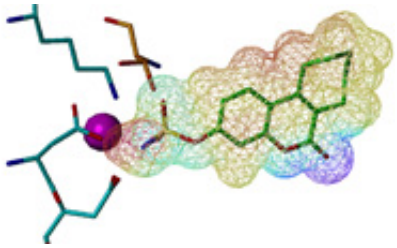

Picture showing how the drug molecule (right) interacts with the steroid sulfatase enzyme (left).

A paper on the anti-cancer drug Irosustat, designed by researchers at the University of Bath, has been awarded 'Very Important Paper' status by the medicinal chemistry journal *ChemMedChem*, including a special cover feature designed by the research group.

The drug, originally known as STX64 and now as Irosustat, was designed and chemically synthesised in the Medicinal Chemistry Group of the University's Department of Pharmacy & Pharmacology.

STX64 and its associated intellectual property formed part of the assets of the Bath-Imperial College spin-out company Sterix Ltd that was co-founded by Professor Barry Potter and was acquired by the pharmaceutical company Ipsen in 2004.

The drug has been developed by Ipsen in recent years, with human clinical trials carried out in hormone-dependent breast cancer, endometrial cancer and in male prostate cancer.

The drug can be given orally and is termed a 'first-in-class' irreversible steroid sulfatase inhibitor. It works by blocking an enzyme pathway that gives rise to precursors of the steroid hormones oestrogen and an androgen that can trigger the growth of hormone-dependent tumours.

The new paper, entitled 'Structure-activity relationship of the clinical steroid sulfatase inhibitor Irosustat (STX64, BN83495),' has appeared in the November issue of the journal and describes how the research team has modified the chemical structure of the drug to explore the effects on biological activity.

Referee reports on the paper were so strong that the journal *ChemMedChem* accorded it coveted 'VIP' status and also invited the authors to design a cover feature for the publication.

Professor Potter, with colleagues Dr Lawrence Woo and Dr Mark Thomas of the Department of Pharmacy & Pharmacology, designed an imaginative cover feature illustrating the drug molecule flanked by renderings of the target enzyme, all superimposed upon a false colour staining of the target protein in malignant breast cancer cells.

The publisher Wiley has also issued a feature on this paper in its own Chem Views online news magazine entitled 'Best in Class'.

Professor Potter said: "It is highly rewarding for the whole team to see the progression of this drug from the bench in a University of Bath synthetic laboratory all the way into diverse major clinical trials in cancer patients and also to see such continuing academic peer-recognition.

"This work emphasises the strength of medicinal chemistry at the University of Bath and demonstrates that academic scientists can play a key role in the drug discovery and development processes, traditionally a preserve of the pharmaceutical industry."

More information: The full paper can be accessed through the ChemMedChem website.

Provided by University of Bath