

## The School of Pharmacy and Pharmaceutical Sciences

## Seminar Series 2009/10

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**'The Search for a Pure Anti-oestrogen: The Road to Faslodex'**

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Abstract

Faslodex™ (fulvestrant) is a remarkable anti-oestrogen. It was the first in a new class of selective estrogen receptor down-regulators (SERDs) that target and degrade the estrogen receptor (ER) and it was developed for the treatment of ER-dependent advanced breast cancer. At the time Nolvadex™ (tamoxifen), a partial estrogen antagonist, was the "gold standard" in breast cancer therapy in postmenopausal women. However, even ER-dependent breast tumours may eventually become resistant to tamoxifen leading to progression of the cancer. A research programme to find a more effective alternative to Nolvadex™ was initiated and led eventually to Faslodex™ but the road to Faslodex™ was far from straightforward. The talk will describe

- Where Faslodex™ came from, looking at what was known at the time, how the lead was found and developed, and what factors got in the way.
- The effectiveness of older methods, the value of functional outcome assays, the use of clinically relevant surrogates, and the value of a fuzzy objective
- A contrast between old and new approaches looking at what is possible now and the techniques used at the time
- Relevant advances in the understanding of nuclear hormone receptors and advanced testing systems.