Gerry Potter Honoured for his Development of Abiraterone Acetate

Prof. Gerry Potter, known to most of you as the scientist that discovered Salvestrols, has recently been awarded the Royal Society of Chemists 'Teamwork in Innovation 2011 Award' for his role in the discovery and development of Abiraterone Acetate for prostate cancer along with the other members of the abiraterone team.

In 1990 Gerry became a Post-Doctoral Fellow at University of London (The Institute of Cancer Research) and joined a group of researchers that were working on prostate cancer and specifically interested in CYP17, a key enzyme in androgen and oestrogen biosynthesis. The research group felt that since prostate cancer appeared to be fuelled by androgens blocking this enzyme would have a dramatic impact on the growth of prostate cancer cells. Since Gerry was the medicinal chemist he was given the task of trying to design a drug that would inhibit CYP17. This was not a small job – at the time tools were not available to elucidate the structure of this enzyme. Nevertheless Gerry took on the task and in the space of two weeks, and one big eureka moment later, he had sketched out the structure of abiraterone acetate. He then produced this structure in the lab and testing began. Abiraterone acetate proved to be an excellent CYP17 inhibitor, 10,000 times more potent than the prostate cancer drug of choice at the time – ketoconazole. On the strength of amazing laboratory results Gerry worked out a process for scaling up production of abiraterone and a patent was filed.

This past year abiraterone acetate received FDA approval and European approval for use in men with castration resistant prostate cancer. In clinical trials abiraterone has proved to extend survival of men with advanced prostate cancer. Abiraterone has proved so successful with prostate cancer that a trial has now begun to investigate its effectiveness against breast cancers that are locally advanced or have spread to other parts of the body as well as being either oestrogen receptor positive or androgen receptor positive. In 2009 Johnson and Johnson acquired abiraterone from Cougar Pharmaceuticals, the company that had conducted the clinical trials of abiraterone, for approximately $1billion.

Years later Gerry would use this experience with CYP17 and abiraterone to design a drug to target CYP1B1 – DMU212. This experience, in turn, led to Gerry's quest to find food-based compounds that targeted CYP1B1 to bring about the same benefit as his synthetic drug. This, of course, was the discovery of Salvestrols.

This is the third time that Gerry Potter's research has been honoured through awards from the Royal Society of Chemists (RSC). Gerry's first Innovation Award from RSC was granted to him in 1996. Health Action Network Society offers its congratulations to Gerry on this recent honour and we all look forward to more great research to come.

http://www.rsc.org/ScienceAndTechnology/Awards/TeamworkinInnovation/2011winner.asp