

## **KARO BIO RECIEVES EUROPEAN PATENT**

- **THE DEVELOPMENT OF A NEW GENERATION OF PHARMACEUTICALS TARGETING THE ESTROGEN RECEPTOR BETA SECURED BY PATENT**
- **UNIQUE OPPORTUNITIES IN WOMEN'S HEALTH CARE**

Karo Bio AB was today granted patent by the European Patent Office on the estrogen receptor beta. The Patent, which covers 17 European countries, gives Karo Bio and its partner, Merk & Co. exclusive rights in Europe in the isolated receptor and its use in drug discovery and design methods.

The grant of a patent gives Karo Bio and its Pharmaceutical collaborator Merck Inc. unique opportunities to develop safe and more potent pharmaceuticals for treatment of a variety of important diseases.

"The granted estrogen receptor beta patent significantly adds to Karo Bio's extensive proprietary technology in the estrogen field, including also structural information of the estrogen receptor alpha and beta targets", says Per Otteskog, Executive Vice President Research & Development of Karo Bio.

Estrogen therapy in use today can protect women from development of postmenopausal symptoms, osteoporosis and cardiovascular diseases. Conversely, antagonists of estrogen are useful for treatment of breast cancer. However, the pharmaceuticals in use today do not discriminate between the two receptor forms and may also have significant draw backs regarding side effects.

The estrogen receptor beta has a unique distribution and function in different tissues and organs in comparison to the estrogen receptor alpha. This provides the opportunity for development of a completely new class of receptor subtype selective pharmaceuticals for treatment of a variety of disorders.

Nuclear receptors function as molecular locks for hormonal keys such as sex hormones and thyroid hormones. The hormones activate the receptor to take part in the regulation of certain genes, which play a central role in cell and tissue functions. They are thus important pharmaceutical targets for developing more effective pharmaceuticals.

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**For further information, please contact:**

Per Otteskog, Executive Vice President Research & Development of Karo Bio,  
Tel: +46/8/6086018

*Karo Bio AB is a research based pharmaceutical company that develops drugs that acts via nuclear receptors for the treatment of major diseases, such as osteoporosis, type 2 diabetes, cancer, cardiovascular disease and metabolic disorders. The company has a leading position within this field, and development programs are carried out in collaboration with international pharmaceutical companies. The company has about 80 employees, and is located at the Novum research complex adjacent to Huddinge University hospital. In addition, Karo Bio has a subsidiary in San Francisco and a comprehensive, international scientific network. The company is listed on the Stockholm Stock Exchange and has collaboration agreements with Bristol-Myers Squibb and Merck & Co.*