Mechanisms of Steroid Hormone Action

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Research
In a traditional view, the endocrine action of steroid hormones is based on the concept where the hormone is synthesized in the gland and reaches the target organ via blood circulation. Our group has been actively involved in studies providing evidence for the concept of “intracrinology”, where the ligand concentration available for nuclear receptor is regulated also by the target tissue metabolism. Especially, we study the role of HSD17B enzymes in the steroid and lipid metabolism by applying GM mouse models, tumor xenografts and by using clinical samples. Our focus is on breast cancer, prostate cancer and endometriosis.

Current topics
- To define the role of HSD17B enzymes in regulating the amount and type of ligand for nuclear receptor action
- To define the role of local sex steroid synthesis in the etiopathogenesis of breast and prostate cancer
- To define the role of intra tissue sex steroid synthesis and steroid hormone action in endometrium and the role of the enzymes in etiopathogenesis of endometriosis.

Great part of our work is also devoted to generate genetically modified mice within the infrastructure of Turku Center for Disease Modeling (TCDM).

Personnel

Senior scientists/post docs
Marion Adam, Pirjo Pakarinen, Taija Saloniemi-Heinonen, Leena Strauss, Fuping Zhang

PhD students
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Recent publications (2011-)


