P38 - ^{67}Ga ESTRADIOL BASED COMPLEX FOR BREAST CANCER ER+ IMAGING: SYNTHESIS AND PRECLINICAL EVALUATION

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Cancer is recognized as a major leading cause of death worldwide. The oestrogen receptor (ER) is an important tumour biomarker for molecular imaging and radionuclide therapy due to its overexpression in many malignant cells (breast, ovarian, endometrial) when compared to normal cells [1]. Moreover, ER status can predict the tumor prognosis or response to hormonal therapy as such cancers are often hormonally regulated. Therefore, the search for novel ligands to specifically target ER-positive (ER+) tumours continues to be a very demanding task and may improve the diagnosis and monitoring of individual therapeutic responsiveness [2, 3].

Recently we have described the preclinical studies obtained with two ^{67}Ga/^{111}In-16α-DOTA-estradiol based complexes to specifically target ER+ cancer cells [4].

Herein we describe the synthesis and preclinical evaluation of a new ^{67}Ga complex 16α-NODAGA-estradiol derivative (**L**) to access its feasibility for functional imaging of ER+ tumors.

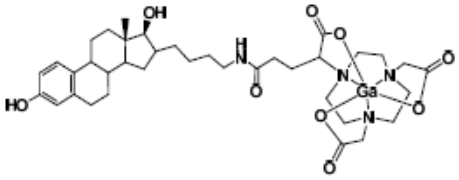

Figure 1: Structure of ^{67}GaL

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