

Licensing Opportunity (BioT-1281/1059-UMG) Oligopeptide Combi-Therapy of (resistant) steroidal cancers

Steroid-related cancers have the highest incidence among tumors and its market potential for Europe and U.S.A. is estimated to be at least **US\$ 2.4 bn** p.a. **Malignant melanoma** is one of the most aggressive cancer and there is no therapy known. Its market corresponds to **US\$ 1.2 bn** p.a.

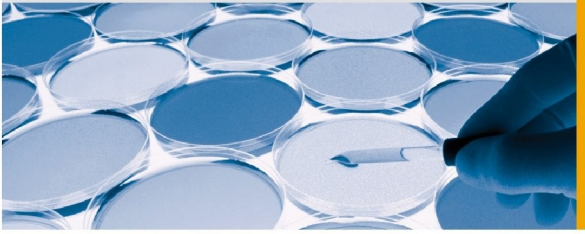
Scientists at the University of Göttingen developed novel proprietary decapeptidic antagonists to target GnRH-II receptor (which is highly expressed in steroidal cancers like e.g. breast, ovarian, endometrium and prostate carcinomas), which could be used in a combination cancer therapy and which potentially could also be used to treat malignant melanoma.

Hallmarks

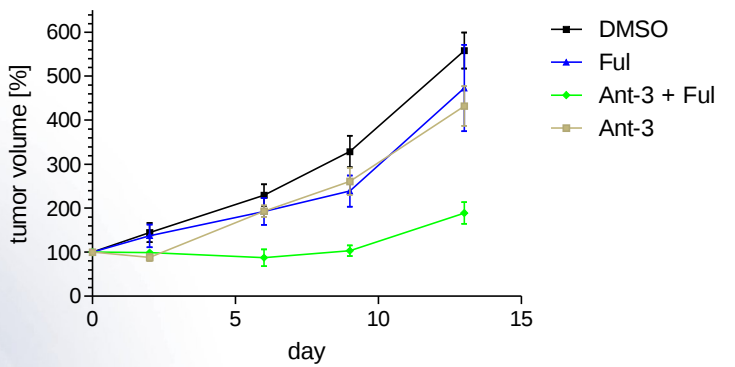
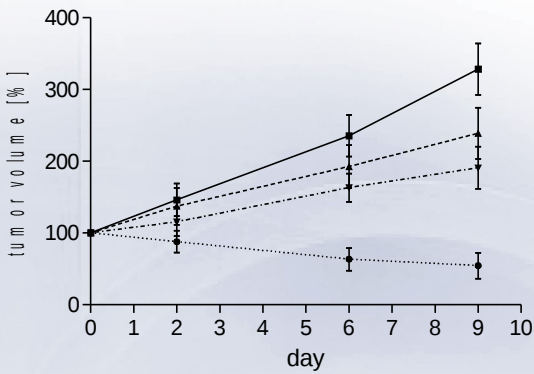
- Proprietary decapeptide GnRH-2 antagonists, for **cancer therapy in combination** with
- Selective Estrogen Receptor Modulators (**SERM**, e.g. Tamoxifen, Toremifene), or
- Selective Estrogen Receptor down regulators (**SERD**, e.g. fulvestrant, Faslodex™), or
- Aromatase inhibitors (**AI**, e.g. Formestane, Fadrozole, Aromasin™, Arimidex™), or
- Glycolysis inhibitors (**GI**).
- NO hormonal activity.
- Mechanism of action elucidated: cross-reacting pathways with named drugs, thus synergism and re-sensitization possible.
- **Resensitization of resistant tumor cells.**
- Combination of decapeptides with current drugs appear to be suitable combi-drug for an efficacious and less toxic therapy for high aggressive tumors.
- Successful ***in vivo* Proof of Concept** in Breast/Mamma, Endometrial and Ovarian cancer.

Uses

- ★ Therapy of resistant (SERM/SERD/AI) cancers.
- ★ Therapy of steroid related cancers *and* of malignant melanoma.



Proof of concept: *in vivo* Combi-therapies
results: Synergism + Resensitization + Remission

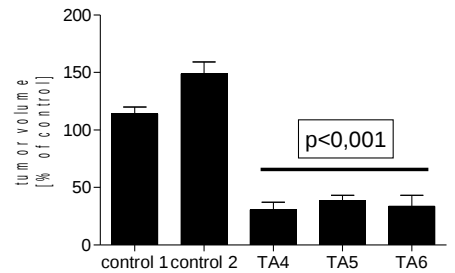
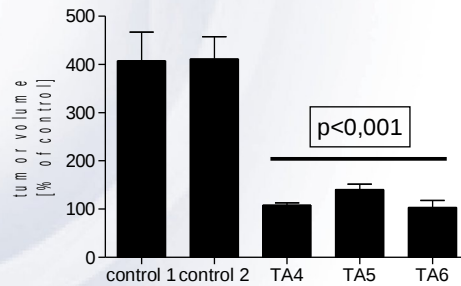
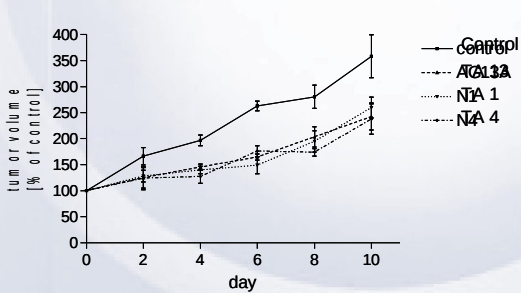


Tamoxifen + proprietary Decapeptides

Fulvestrant + proprietary Decapeptides

Nude mice bearing human breast tumors s.c. were treated intraperitoneally every 2nd day without, with Uni-Goettingen decapeptides alone (25 nmol) or in combination with 4-OH-Tamoxifen (1micromol) or Fulvestrant (1 micromol), and the tumor volumes were measured.

Proof of concept: *in vivo* activity of proprietary decapeptides alone



Ovarial cancer

Endometrial cancer

Breast Cancer

i.p. injection of propriety decapeptides alone in mice with implanted carcinoma cells.

References: WO07012460, WO2010XXXXXX

Breast Cancer Research 2010, 12:R49; Cancer Res 2009:69 (16) 6473-6481;
 Cancer Res 2007;67:(4) 1750-1756

We filed a portfolio of patent applications and are now **looking for companies, which are interested in licensing, developing and commercializing our approach.**