

Licensing Opportunity (BioT-1248/0706-SUG)

- Prodrugs for a selective tumor therapy
- Drugs for tumor therapy

Scientist at the Georg-August-Universität Göttingen developed novel CC-1065 analogue prodrugs for selective tumor therapy, e.g. based on ADEPT (Antibody Directed Enzyme Prodrug Therapy). The Global cancer market forecast is US\$ 53 bn for 2009.

Hallmarks

Use of Prodrugs for an Antibody Directed Enzyme Prodrug Therapy (ADEPT) possible.

Use of Drugs for a direct cancer therapy possible.

Specific tumor targeting through available antibodies.

New Highly soluble Prodrugs with low cytotoxicity.

Activation of the prodrug into cytotoxic drug occurs through the enzyme at the tumor site only

Enzyme has to be coupled to the tumor-antibody.

Prodrug has low cytotoxicity, whereas drug is highly cytotoxic.

Higher cytotoxicity (pico-molar range) than actually used Doxorubicin.

Our Know-how: good chemistry.

Successful *In Vivo* proof of concept experiments

(1) Successful *in vivo* **Lymphoma/CD19** MAb model

(2) Successful *in vivo* **Mamma carcinoma/uPAR** MAb model, showing:



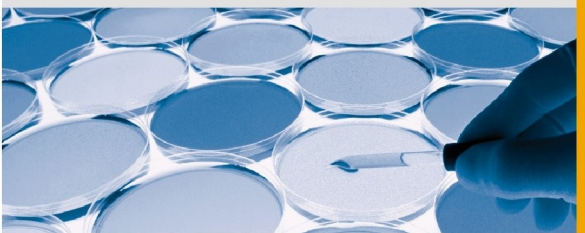
Significantly reduced tumor growth.

Lower blood vessel density.

Decreased tumor density.

First successful toxicological studies.

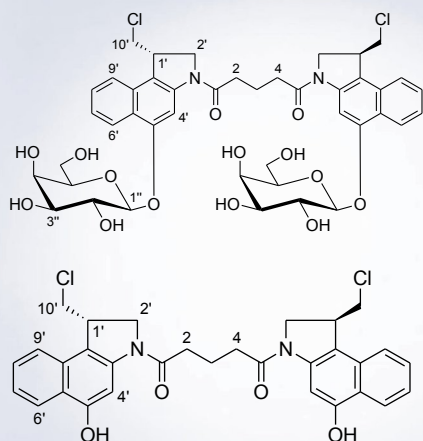
High therapeutic dose range tested.



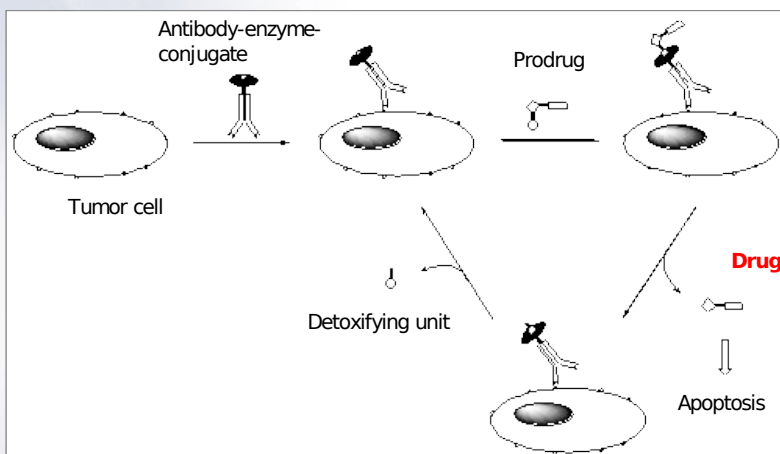
In vivo experiments with a human breast cancer model in mice showing a significant decreased tumor growth through treatment by ADEPT with our New Prodrugs.



Prodrug (above) activated by the enzyme Galactosidase gives the active Drug (below)



ADEPT mechanism of tumor targeting and prodrug activation.



Our patent application is available for worldwide licensing. **We are looking for companies**, which are interested in licensing, developing and commercializing our approach.

Ref:

- Angew. Chem., Int. Ed. 2006, 45, 6574-6577.
- Angew. Chem., Int. Ed. 2006, 45, 6570-6574.
- Eur. J. Org. Chem. 2006, 2314-2321.
- Chem. Eur. J. 2007, 13, 4396-4409.
- Chem. Eur. J. 2008, 14, 895-901.
- Bioorg. Med. Chem. 2008, 16, 6312-6318.
- ChemMedChem. 2008, 3, 1946-1955.
- Chem. Biol. Drug Res. 2009, 74, 205-211.
- J. Med. Chem. 2009, 52, 537-543.