

## Cure for CLL

### Derivates of para-NO-ASA for the treatment of CLL

#### Invention

Chronic lymphocytic leukemia (CLL) is the most common adult leukemia in Western countries. The disease is very heterogeneous with some patients showing extremely slow progression while others proceed rapidly into advanced disease stages and require immediate treatment. Despite considerable improvement of therapeutic strategies in the last decade, CLL remains incurable by conventional chemo-immuno therapies. The development of new treatment options remains an important goal. The present invention provides compounds acting as an effective and selective medicament for the treatment of neoplastic diseases or proliferative disorders, in particular compounds, which induce

selectively apoptosis of degenerated cells providing reduced side effects in living organisms. The compounds of the present invention are characterized by a high selectivity towards neoplastic cells. CLL cells show a higher sensitivity towards the compounds than PBMCs opening a therapeutic window. The EC50 for CLL cells is in the lower micromolar range. Furthermore, compounds have proven activity on different CLL populations. The activity against CLL cells has been shown in a xenograft model of CLL. It has been shown that compounds may be suitable for the treatment of other neoplasias.

#### Commercial Opportunities

On behalf of the University of Cologne, we are offering this opportunity for licensing.

#### Current Status

In case of interest we will be pleased to inform you about the patent status.

#### Relevant Publications

Gehrke, I. et al. (2011) The antineoplastic effect of nitric oxide-donating acetylsalicylic acid (NO-ASA) in chronic lymphocytic leukemia (CLL) cells is highly dependent on its positional isomerism. *Ther Adv Hematol* 2(5):279-89.

Razavi, R. et al. (2011) Nitric Oxide-Donating Acetylsalicylic acid induces Apoptosis in chronic Lymphocytic Leukemia cells and shows strong antitumor efficacy *In Vivo*. *Clin Cancer Res* 17(2):286-93.

An invention of the University of Cologne.

#### Competitive Advantages

- Compound claims towards novel derivatives of para-NO-ASA
  - ▶ High selectivity
  - ▶ High activity
  - ▶ Tested on different CLL cell populations
  - ▶ Proven in a xenograft model of CLL
- Development team comprising chemists and clinicians
- Compounds may be suitable for the treatment of other neoplasias

#### Technology

##### Readiness Level

12345678

Technology validated in lab

#### Industries

- Chemical Industry
- Pharmaceutical Industry

#### Ref. No.

4045

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