# **TECHNOLOGY OFFER**



# 27-14: Glycodelin as a diagnostic and prognostic marker

# **Key Facts**

✓ Glycodelin for use in the diagnosis, prognosis and/or treatment monitoring of a lung disease

### The Technology

This invention relates to glycodelin for use in the diagnosis, prognosis and/or treatment monitoring of a lung disease. It further relates to a method for the diagnosis, prognosis and/or treatment monitoring of a lung disease, comprising the step of determining the presence of glycodelin in serum, plasma and/or tissue.

This invention also relates to glycodelin for use in modulating the immune system in subjects with lung transplantation, preferably in order to prevent organ recipient from allograft rejection, comprising treatment of the lung with glycodelin before, during and/or after said lung transplantation and a respective method.

### Background

With about 1.3 million cases worldwide, lung cancer is the leading cause for cancer-related death. Based on histo-pathological characterization, lung cancer can be divided in two sub-populations: non-small cell lung cancer (NSCLC), which accounts for more than 80 % of all cases, and small-cell lung cancer (SCLC) (Giaccone et al., 2004). In recent years chemotherapeutic treatments of lung cancer patients are progressively supplemented with precision therapy based on genetic analyses due to the still very low 5-year survival rate in NSCLC (Rosell et al., 2013). Sequencing of lung carcinoma demonstrated a high somatic mutation rate of TP53, KRAS and EGFR gene (Govindan et al., 2012). First- and second-line drugs like gefitinib and erlotinib that target the epidermal growth factor receptor can promote progression-free survival (Rosell et al., 2012).

## Advantages

- minimally invasive procedure
- blood-based test early detection
- diagnostic & prognostic testing

### **Commercial Opportunity**

The technology is available for in-licensing for development and commercialization

#### Inventors

Meister, Muley and Schneider (Thorax Klinik Heidelberg)

#### Intellectual Property

PCT/EP2015/067502

#### **Reference:**

Schneider MA, Granzow M, Warth A, Schnabel PA, Thomas M, Herth FJ, et al. Glycodelin: A New Biomarker with Immunomodulatory Functions in Non-Small Cell Lung Cancer. Clinical cancer research: an official journal of the American Association for Cancer Research. 2015;21:3529-40.

Schneider MA, Kahn, NC, Thomas M, Herth FJF, Muley T, Heussel, CP, et al. The Pregnancy Associated Protein Glycodelin as a follow-up Biomarker in a Male Non-Small Cell Lung Cancer Patient. Cancer Treatment Communications.10.1016/j.ctrc.2015.09.005

#### Contact:

technology transfer heidelberg GmbH Im Neuenheimer Feld 672 D-69120 Heidelberg Germany Email: tt-team@med.uni-heidelberg.de



UniversitätsKlinikum Heidelberg