

Compounds for cancer diagnostics

Summary

Profile type	Company's country	POD reference
Technology offer	Germany	TODE20230627003
Profile status	Type of partnership	Targeted countries
PUBLISHED	Commercial agreement with technical assistance	• World
Contact Person	Term of validity	Last update
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General Information

Short summary

A German university offers licenses for a novel method that uses radio- and fluorescence-labeled compounds in diagnosing cancer. This method might lead to earlier detection of tumors. Potential partners would be diagnostics companies interested in producing and selling the invention.

Full description

The enzyme Ecto-5'-nucleotidase (CD73, eN) catalyzes the dephosphorylation of extracellular AMP to adenosine. It can be found on the surface of many different cell lines like endothelia, stromal and cells of the immune system like lymphocytes and regulatory T-cells. Furthermore, CD73 is highly overexpressed on various tumor cells such as bladder, colon, ovarian, melanoma, pancreatic and breast cancer. CD73 represents a novel target for checkpoint inhibition in cancer immunotherapy and its expression is a promising biomarker for diagnosis and monitoring of therapies.

The invention of a German university relates to radio- and fluorescence-labeled compounds, as well as their use as diagnostics for detecting Ecto-5'-Nucleotidase (CD73) expression. The invention is further directed to a pharmaceutical composition comprising said compounds as well as to the compounds and the pharmaceutical composition for use in a method of diagnosis of a disease associated with increased CD73 expression as well as in the treatment of a disease associated with increased CD73-expression, e.g., cancer.

(see image below: In vivo PET imaging of 18F-PSB-19427 in tumor bearing mice (s.c. MDA-MB-231 xenografts, left and right shoulder). Representative PET images 4h p.i. of 18F-PSB-19427 demonstrate a pronounced accumulation of the tracer in the tumor xenografts (white arrows) that was diminished in a blocking study.)

The university offers license agreements to industrial companies that produce diagnostics.

Advantages and innovations

The use of highly potent nucleotide-derived CD73 inhibitors as diagnostic tools bearing fluorescent, ultrasonic labels or radionucleotides might ease the early localization of primary tumors and metastasis in e.g. triple-negative breast cancer.

Technical specification or expertise sought

Stage of development

Under development

Sustainable Development goals

• **Goal 3: Good Health and Well-being**

IPR Status

IPR applied but not yet granted

Partner Sought

Expected role of the partner

Type of partner sought: Provider of diagnostic products

Role of partner: Produce and sell the invention

Type of Partnership Considered: License agreement

Type of partnership

Type and size of the partner

Commercial agreement with technical assistance

- SME 50 - 249
- Big company
- SME 11-49

Dissemination

Technology keywords

- 06001003 - Cytology, Cancerology, Oncology
- 06001005 - Diagnostics, Diagnosis

Targeted countries

- World

Market keywords

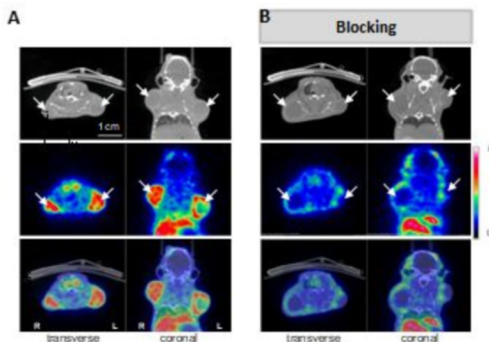
- 05005014 - Oncology
- 005001008 - Diagnostic test products and equipment
- 05001007 - Other diagnostic

Sector groups involved

- Health

Media

Images



[Left: without blocker, right: pretreating with unlabeled compound 10 min before tracer injection](#)