Validation of blood-brain-barrier permeability as a glioma biomarker by means of the radiotracer 99mTc-tetrofosmin and single-photon emission computer tomography

From 2015-07-01 to 2019-12-31, ongoing project | GLIOMARK Website

Objective

Objective of GLIOMARK is to clinically validate the permeability of the blood brain barrier (BBB) as an in vivo biomarker for the diagnosis and grading of gliomas. This will be accomplished by means of the radiotracer 99mTc-tetrofosmin (TTF) and the imaging technique Single-Photon Emission Computer To-mography (SPECT).

The outcome of GLIOMARK is GlioTect, a diagnostic kit containing handling/diagnostic instructions and tetrofosmin. The latter has to be reconstituted with 99mTc pertechnetate to yield TTF, which will be used in combination with SPECT. Often computer tomography or magnetic resonance imaging are unable to detect low-grade gliomas or distinguish glioma from other diseases. Hence, brain biopsies are necessary for confirmation of diagnosis and grading of gliomas. GlioTect with TTF/SPECT enables reliable, fast differential diagnosis and grading of gliomas as non-invasive method. This has an immediate impact on the type and aggressiveness of subsequent therapies.

Gliomas are recognized as a rare tumor disease with poor prognosis and orphan diagnostic designation for GlioTect will guarantee 10 years of market exclusivity upon approval. ProActina, a Greek chemical-speciality SME having identified this innovative niche market opportunity could become global market leader in glioma diagnostics.

Development is at TLR level 6-7 and will be lifted to 9. Expected market application is the sale of GlioTect for preparation of TTF for use with SPECT. End users are hospitals that use the kit to reliably diagnose or exclude gliomas without the need for expensive equipment.

Taken together, the aggregated unique selling point of SPECT in combination with TTF (generated by means of GlioTect) is the first ever and only glioma diagnostic, which assesses a clinically validated glioma biomarker, has high reliability, reproducibility, sensitivity, as well as specificity, which is used to replace an invasive method, is safe, well tolerated, widely available and more affordable

Related information

Report Summaries

Periodic Reporting for period 2 - GLIOMARK (Validation of blood-brain-barrier permeability as a glioma biomarker by means of the radiotracer 99mTc-tetrofosmin and single-photon emission computer tomography)
Coordinator

CONSULTECH TECHNOLOGIEBERATUNG GMBH
MORGENSTERNSTRASSE 24
12207 BERLIN
Germany

*EU contribution:* EUR 3 167 094

**Activity type:** Other

Contact the organisation

Participants

PRO-ACTINA CHIMIKI TECHNOLOGIA ANONIMI ETAIRIA
DELFONSTREET 20
15125 MAROUSI ATHENS
Greece

*EU contribution:* EUR 1 538 250

**Activity type:** Other

Contact the organisation

Last updated on 2016-08-23
Retrieved on 2019-07-08

© European Union, 2019