Blood test for clinical therapy guidance of non-small cell lung cancer patients

Fact Sheet

Project Information

**LungCARD**

Grant agreement ID: 734790

Project website [ ]

**Status**

Ongoing project

**Start date**

1 January 2017

**End date**

31 December 2021

**Funded under**

H2020-EU.1.3.3.

**Overall budget**

€ 1 039 500

**EU contribution**

€ 976 500

**Coordinated by**

STAB VIDA INVESTIGACAO E SERVICOS EM CIENCIAS BIOLOGICAS LDA

Portugal

Objective

Lung cancer is the most common cancer worldwide. NSCLC alone make up about 75% of all lung cancers and most hospitals currently test all NSCLC patients for EGFR mutations (pharmacogenomics) for treatment decision (personalised medicine) – i.e., patients with mutation(s) in EGFR gene should receive a EGFR-Tyrosine Kinase Inhibitor (TKI) drug (e.g. afitinib) treatment; while those that do not present mutations in such gene, should be treated with chemotherapy. Currently, the laboratories use PCR and Sanger sequencing technologies to perform the EGFR analysis from tumour biopsies - Fixed Paraffin Embedded (FFPE) samples. Still, some patients (e.g., 30% in UK) may never get histological confirmation because they are too sick to make a biopsy. Furthermore, the results obtained with current methods still present low quality, mainly due to poor quality/low yield of DNA
extracted from FFPE samples. The FP7 LungCARD project (www.lungcard.eu) has
developed and demonstrated a LungCARD system - an automatic system composed
by microfluidic chip and chip analyser - that allows to capture circulating tumour cells
(CTCs) from blood samples, amplify by multiplex PCR and detect EGFR mutations,
including also a software for data analysis and report. Although this new blood test
has proven to be faster, cost-effective and human error-free, the detection of somatic
mutations in EGFR gene at frequencies lower than 20% is still a weak point.
Therefore, the main project’s goal is to benefit from this technology, through the
development, improvement, integration and validation of the LungCARD system with
NGS workflow and development of a software for automatic reporting clinical results.
However, LungCARD project aims to go further, by putting together a global and
unique network of multidisciplinary scientists for exchange of knowledge and
research training focused on non-small cell lung cancer.

Field of science

/natural sciences/biological sciences/genetics and heredity/mutation
/natural sciences/computer and information sciences/software
/medical and health sciences/clinical medicine/oncology/cancer
/natural sciences/computer and information sciences/data science/data analysis

Programme(s)

Topic(s)

Call for proposal

H2020-MSCA-RISE-2016

Funding Scheme

MSCA-RISE - Marie Skłodowska-Curie Research and Innovation Staff Exchange (RISE)

Coordinator

STAB VIDA INVESTIGACAO E SERVICOS EM CIENCIAS BIOLOGICAS LDA

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Participants (7)

UNIVERSITY OF HULL
United Kingdom
EU contribution
€ 72 000
Address
Cottingham Road
HU6 7RX Hull
Activity type
Higher or Secondary Education Establishments
Website Contact the organisation

GENOLOGICA MEDICA SL
Spain
EU contribution
€ 4 500
Address
Calle Larios 1-1 Izquierda
29000 Malaga
Activity type
Private for-profit entities (excluding Higher or Secondary Education Establishments)

INSTITUT ZA ONKOLOGIJU I RADIOLOGIJU SRBIJE
Serbia
EU contribution
€ 22 500
Address
14 Pasterova St.
11000 Belgrade
Activity type
Other

GENETIKS SAGLIK HIZMETLERİ TİCARETLİMİTED SİRKETİ
Turkey
EU contribution
€ 0

Address
Gayrettepe Mah Bahar Sok
Baras Is Merkezi No 4A
Balmumlu Besiktas
34349 Istanbul

Activity type
Private for-profit entities
(excluding Higher or Secondary Education Establishments)

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UNIwersytet JAGIELlON斯基

Poland
EU contribution
€ 54 000

Address
Ul. Golebia 24
31007 Krakow

Activity type
Higher or Secondary Education Establishments

Contact the organisation

FUNdacja DA FACULDADE DE CIENCIAS DA UNIVERSIDADE DE LISBOA FP

Portugal
EU contribution
€ 0

Address
Campo Grande Edificio C1
Piso 3
1749 016 Lisboa

Activity type
Research Organisations

Website
Contact the organisation

FCiENCIAS.ID - ASSOCIACAO PARA A INVESTIGACAO E DESENVOLVIMENTO DE CIENCIAS

Portugal
EU contribution
€ 220 500

Address
Campo Grande, Edificio C1, Piso 3
1749 016 Lisbon

Activity type
Research Organisations

Website
Contact the organisation
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<th>Partner Name</th>
<th>Country</th>
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<td>UNIVERSIDAD SAN MARTIN DE PORRES ASOCIACION</td>
<td>Peru</td>
<td>Av. Las Calandrias, Santa Anita, 43 Lima</td>
<td>Higher or Secondary Education Establishments</td>
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<tr>
<td>Institut Pasteur Du Maroc</td>
<td>Morocco</td>
<td>Place Louis Pasteur 1, 20360 Casablanca</td>
<td>Research Organisations</td>
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<td>UNIVERSITE HASSAN II DE CASABLANCA</td>
<td>Morocco</td>
<td>19 Rue Tarik Ibnou Ziad, 20360 Casablanca</td>
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<td>PARSEQ LAB CO LTD</td>
<td>Russia</td>
<td>Birzhevaya Str 16, 199034 Saint Petersburg</td>
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<tr>
<td>FEDERAL UNIVERSITY OF AGRICULTURE ABEOKUTA</td>
<td>Nigeria</td>
<td>Alabata Road Ogun State, 110001 Abeokuta</td>
<td>Higher or Secondary Education Establishments</td>
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</table>
110001 Abeokuta

Education Establishments

Website

Contact the organisation

RESPUBLIKA ONKOLOGIYA ILMIY MARKAZI

Uzbekistan

Address
Farobiy 383
100174 Taskent

Activity type
Other

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UNIVERSITY OF TECHNOLOGY SYDNEY

Australia

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Broadway Building 1 Ultimo
Nsw
2007 Sydney

Activity type
Higher or Secondary Education Establishments

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Sloan-Kettering Institute for Cancer Research CORPORATION

United States

Address
York Avenue 1275
10065 New York

Activity type
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MILLI ONKOLOGIYA MERKEZI

Azerbaijan

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1122 Baku

Activity type
Research Organisations

Contact the organisation

Last update: 15 December 2020
Record number: 207064