Agent-based Distributed Decision Support System for brain tumour diagnosis and prognosis

Fact Sheet

<table>
<thead>
<tr>
<th>Project Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HEALTHAGENTS</strong></td>
</tr>
<tr>
<td>Grant agreement ID: 027214</td>
</tr>
<tr>
<td><strong>Start date</strong></td>
</tr>
<tr>
<td>1 January 2006</td>
</tr>
</tbody>
</table>

Funded under
Information Society Technologies: thematic priority under the specific programme "Integrating and strengthening the European research area" (2002-2006).

**Total cost**
€ 4 106 878,00

**EU contribution**
€ 3 791 269,00

**Coordinated by**
MICRO ART SL
Spain

Objective

The diagnosis and treatment of brain tumours is typically based on clinical symptoms, radiological appearance and often a histopathological diagnosis of a biopsy. However, treatment response of histologically or radiologically similar tumours can vary widely, particularly in children. Magnetic Resonance Spectroscopy (MRS) is a non-invasive technique for determining the tissue biochemical composition (metabolomic profile) of a tumour. Additionally, the genomic profile, determined using DNA micro-arrays, facilitates the classification of tumour grades.
and types not trivially distinguished by morphologic appearance. We argue that this new information for classifying tumours along with clinical data should be securely and easy accessible in order to improve the diagnosis and prognosis of tumours. All data will be stored anonymously, and securely through a network of Data Marts based on all this information acquired and stored at centres throughout Europe.

This network will grant bona-fide access to an organisation in return for its contribution of clinical data to a distributed Data Warehouse (d-DWH)/Decision Support System (d-DSS). An ad hoc agent-based architecture will negotiate a distributed diagnostic tool for brain tumours, implement data mining techniques, transfer clinical data and extract information. The distributed nature of our approach will help the users to observe local centre policies for sharing information whilst allowing them to benefit from the use of the d-DWH.

Moreover, it will permit the design of local centres targeting a specific patient population. We will form a consortium encompassing a wide range of talent from Universities, SME and Hospitals. The d-DWH/d-DSS, the MRS installed base and the expertise of the consortium will provide the foundations for the first EU grid for brain tumour diagnosis and prognosis. We will profit from a world-class clinical data exchange network to address one of the most pernicious diseases of our time: cancer

**Fields of science**

natural sciences  >  biological sciences  >  genetics  >  DNA

natural sciences  >  computer and information sciences  >  data science  >  data mining

medical and health sciences  >  clinical medicine  >  oncology

natural sciences  >  computer and information sciences  >  data science  >  data exchange

natural sciences  >  physical sciences  >  optics  >  spectroscopy

**Programme(s)**

FP6-IST - Information Society Technologies: thematic priority under the specific programme "Integrating and strengthening the European research area" (2002-2006).

**Topic(s)**

IST-2004-2.4.11 - Integrated biomedical information for better health
Call for proposal

Data not available

Funding Scheme

STREP - Specific Targeted Research Project

Coordinator

MICRO ART SL
EU contribution
No data

Address
Calle baldiri i reixac 4-6 tr d
08028 Barcelona
Spain

Total cost
No data

Participants (8)

INSTITUTO DE APLICACIONES DE LAS TECNOLOGIAS DE LA INFORMACION Y DE LAS COMUNICACIONES AVANZADAS - ITACA
Spain
EU contribution
No data

Address
Camino de vera s/n
Valencia

Total cost
No data
KATHOLIEKE UNIVERSITEIT LEUVEN

EU contribution
No data

Address

Links
Website

Total cost
No data

PHARMA QUALITY EUROPE SRL

Italy
EU contribution
No data

Address
Via poggi 1
52020 Castelfranco di sopra (arezzo)

Total cost
No data

THE UNIVERSITY OF BIRMINGHAM

United Kingdom
EU contribution
No data

Address
Edgbaston
Birmingham

Links
Website
THE UNIVERSITY OF EDINBURGH

EU contribution
No data

Address

Links
Website

UNIVERSITAT AUTONOMA DE BARCELONA

Spain
EU contribution
No data

Address
Campus universitari s/n
08193 Bellaterra (cerdanyola del valles)

Total cost
No data

UNIVERSITAT DE VALENCIA

Spain
EU contribution
No data

Address
UNIVERSITY OF SOUTHAMPTON

United Kingdom

EU contribution

No data

Address

Highfield
Southampton

Link

Website

Total cost

No data

Last update: 12 March 2007

Permalink: https://cordis.europa.eu/project/id/027214

European Union, 2024