



Project no. **037315**

Project acronym
EPICURE

Project title
Functional Genomics and Neurobiology of Epilepsy: a basis for new therapeutic strategies

Instrument
INTEGRATED PROJECT

Thematic Priority
Functional Genomics and Neurobiology of Epilepsy

Deliverable reference number and title: D 6.4 E-newsletter

Due date of deliverable: month 12

Actual submission date: 15th February 2008

Start date of project: 1st January 2007 Duration: 48 months

Organisation name of lead contractor for this deliverable:

Organisation name of lead contractor for this deliverable: Fondazione IRCCS Istituto Neurologico "Carlo Besta" - INN CB

Revision: Version 1

Project co-funded by the European Commission within the Sixth Framework Programme (2002-2006)	
Dissemination Level	
PU	Public



EPICURE e-newsletter

Issue n. 2

December 2007

**Acknowledgement of support from the European Commission contract
number LSH-CT-2006-037315 (EPICURE)**

FP6 - Thematic priority LIFESCIHEALTH

In this issue:

• BACKGROUND	
ABOUT EPILEPSY IN EUROPE.....	4
ABOUT EPICURE.....	4
• LATEST NEWS	
SECOND ANNUAL MEETING – JANUARY 2008.....	4
PROGRESS TO DATE.....	5
PROSPECTS FOR 2008.....	5

BACKGROUND

ABOUT EPILEPSY IN EUROPE

As many as 6 million people in Europe have active epilepsy with associated implications not only for their health but for independent living, education and employment, mobility, relationships, and insurance. It is estimated that 1.5 million of these are children under the age of 12 years. The resulting economic burden is estimated at 18 billion euro annually.

ABOUT EPICURE

EPICURE is one of the most exciting European research projects involving 30 collaborating partners from 13 European countries, undertaking ground-breaking research over a period of 4 years, funded by EU FP6 research funds. **EPICURE** will identify the diseasecausing genes and their functional role for both inherited acquired epilepsies, which are being investigated in animal models and human tissue with a focus on drug resistant temporal lobe epilepsy, and epilepsies due to developmental cortical abnormalities. A main effort of **EPICURE** is devoted to investigating developmental aspects of epileptogenesis that account for the high frequency of epilepsies in children and for their often severe prognosis.

LATEST NEWS

SECOND ANNUAL MEETING – JANUARY 2008



Prof Giuliano Avanzini, project coordinator tells how the project began: *“A network of laboratories in Europe was already collaborating on research but wished to improve coordination of activities on epileptogenic mechanisms with particular regard to genetic mechanisms. An expression of interest was submitted to the European Union 6th Framework Programme and the 4th Call for Applications was related to the topic proposed”*. The FP6 EPICURE contract (LSH-CT-

2006-037315) started on January 1st 2007. In January 2008 more than 100 delegates gathered in Malta for the second annual meeting of **EPICURE** participating partners. Representing research laboratories in 13 European countries, as well as the International Bureau for Epilepsy and CF Consulting, this was the opportunity to reflect on the work of the previous twelve months, to present reports on advances made to date and to set the programme for the coming year. Welcoming delegates, **Hon Louis Deguara**, Minister of Health and Community Care in Malta said: *“I was pleased to note the focus of your project. Epilepsy remains the most serious neurological disorder across the globe – worldwide, as you know, it affects about 50 million people. We estimate that there are more than 3,000 people who have epilepsy in the Maltese Islands”*. In plenary session in Malta,

collaborating centres presented interim reports to an audience that included **Dr Patrizia Tosetti** – European Commission Officer Responsible for the Neuroscience area in DG Research, **Prof Ley Sander** and **Prof. Laurent Fagni** experts invited by the European Commission as observers. Several centres also prepared posters to explain graphically the focus of their research during 2007.

PROGRESS TO DATE



Prof Giuliano Avanzini (Project Coordinator) with Mrs Susanne Lund, IBE President (Project Dissemination)

EPICURE is facilitating an important collaboration between independent research laboratories working to improve knowledge on the functioning genomics and neurobiology of epilepsy. *“Several integrated lines of research aimed at advancing the problem of preventing epileptogenic process and at understanding the role of genes in different types of epilepsy have begun and during the first year some preliminary results have been obtained,”* reports **Prof**

Avanzini. *“Twenty potentially interesting genes have been identified during this first year and their interest was discussed in Malta. Some molecular mechanisms responsible for the epileptogenic process in experimental models of post traumatic epilepsy have been analysed. In this and other epilepsy models the role of inflammatory molecules has been highlighted, opening new perspectives to the prevention of the epileptogenic process”.*

PROSPECTS FOR 2008

So what does **Prof Avanzini** expect will happen in **EPICURE** during 2008?

“Specific projects for the next year have been agreed upon - mostly to verify the working hypotheses generated by the first year’s work,” says **Prof Avanzini.** **EPICURE** will run for a further 3 years. During this time the collaborating partners will continue to work together to bring the project to fruition. Informal meetings will be held each year and some staff exchanges are also planned. But the main arena for reporting will be the annual meetings that will be held each January. Asked which three targets he hopes **EPICURE** will have achieved at the end of the project, **Prof Avanzini** is quick to respond:

- 1. To define the role of genetic mechanism not only in epilepsies that are primarily genetic in origin, but also in acquired epilepsies whose development could be influenced or affected by genes.*
- 2. To develop strategies aimed at preventing the development of an epilepsy whenever risk factors are present with particular regard to childhood epilepsies.*
- 3. To understand genetic and environmental mechanisms responsible for the evolution of an epilepsy toward a condition of intractability. And to develop means of preventing such evolution.*

*“I would hope that we will have visible results from **EPICURE** that can be translated to the public within three or four years”* concludes **Prof Avanzini.**