February 13, 2012 08:02 AM Eastern Time

CLC bio part of €12M EU grant to uncover the mechanisms that determine cell fate

BARCELONA, Spain & AARHUS, Denmark--(BUSINESS WIRE)--Today European scientists are meeting to kick off the *4DCellFate* project, funded by the European Commission under the FP7 program. The 4DcellFate project will tackle the question of how the Polycomb Repressive Complex (PRC) and Nucleosome Remodelling and histone Deacetylase (NuRD) complexes function across the genome and time during differentiation, by applying cutting-edge technologies, such as structural biology, microscopy, proteomics, high-throughput sequencing, and computational modeling.

"*Understanding how the PRC and NuRD complexes determine cell fate is a prerequisite for developing models for diseases, such as cancer, that can be used both for further research and for developing personalized medicine therapies.*" states Director of R&D at CLC bio, Dr. Roald Forsberg, and continues, "*The 4DCellFate project is a truly interdisciplinary and innovative project that will generate a wealth of experimental data. We look forward to applying our expertise in building integrated bioinformatics frameworks for handling, visualizing, and integrating all this data and to build new computational models of diseases to help researchers better understand these mechanisms.*"

“Understanding how the PRC and NuRD complexes determine cell fate is a prerequisite for developing models for diseases, such as cancer, that can be used both for further research and for developing personalized medicine therapies.”

ICREA Research Professor and group leader at the CRG in Barcelona, Luciano Di Croce, adds, "*This network has brought together the optimal mix of expertise, laboratories, techniques, and resources to finally elucidate how the fate of a cell is decided and how to apply this knowledge to regenerative medicine.*"

Comprising 8 academic institutions, 3 biotech companies and 1 pharmaceutical company, the 5-year EU-funded project aims to translate basic research findings into new research and medical solutions with a budget of almost 12 million Euros.

The partnering organizations involved in the project are the University of Cambridge (UK), Fundació Privada Centre de Regulació Genòmica (Spain), Copenhagen University (Denmark), Universitair Medisch Centrum Utrecht (Netherlands), Universiteit Antwerpen (Belgium), European Molecular Biology Laboratory (Germany), Max Planck Gesellschaft zur Förderung der Wissenschaften e.V. (Germany), Istituto Europeo di Oncologia SRL (Italy), Horizon Discovery Limited (UK), Cellartis AB (Sweden), Glaxo Smith Kline (UK), and CLC bio (Denmark).

About CLC bio

http://www.clcbio.com/about

Contacts

Contact the 4DCellFate Project
Juan Sarasua, Communication and PR, Centre for Genomic Regulation (CRG)
Phone: +34 93 316 02 37
E-mail: juan.sarasua@crg.eu
or
Contact CLC bio
Lasse Görlitz, Director of Communications
Phone: +1 (617) 765 0687
E-mail: lgoerlitz@clcbio.com

Laboratorytalk

Products and services for scientists and laboratory professionals

4DCellFate project launched by the EC

A CLC Bio product story

Edited by the Laboratorytalk editorial team **Feb 14, 2012**

Ads by Google Laboratory Lims Software FP7 Software FP7 Reporting

CLC bio part of a pan-European project to uncover the mechanisms that determine cell fate

European scientists met on Monday to kick off the 4DCellFate project, funded by the European Commission under the FP7 programme.

The 4DcellFate project will tackle the question of how the Polycomb Repressive Complex (PRC) and Nucleosome Remodelling and histone Deacetylase (NuRD) complexes function across the genome and time during differentiation, by applying technologies, such as structural biology, microscopy, proteomics, high-throughput sequencing, and computational modeling.

'Understanding how the PRC and NuRD complexes determine cell fate is a prerequisite for developing models for diseases, such as cancer, that can be used both for further research and for developing personalised medicine therapies,' said director of research and development at CLC bio, Dr Roald Forsberg.

ICREA research professor and group leader at the CRG in Barcelona, Luciano Di Croce, added: 'This network has brought together the optimal mix of expertise, laboratories, techniques, and resources to finally elucidate how the fate of a cell is decided and how to apply this knowledge to regenerative medicine.

Comprising eight academic institutions, three biotech companies and one pharmaceutical company, the 5-year EU-funded project aims to translate basic research findings into new research and medical solutions with a budget of almost 12 million Euros.

The partnering organisations involved in the project are the University of Cambridge (UK), Fundacio Privada Centre de Regulacio Genandograve;mica (Spain), Copenhagen University (Denmark), Universitair Medisch Centrum Utrecht (Netherlands), Universiteit Antwerpen (Belgium), European Molecular Biology Laboratory (Germany), Max Planck Gesellschaft zur Forderung der Wissenschaften e.V.

(Germany), Istituto Europeo di Oncologia SRL (Italy), Horizon Discovery Limited (UK), Cellartis AB (Sweden), Glaxo Smith Kline (UK), and CLC bio (Denmark).

Ads by Google FP7 Tools FP7 Financial Nucleosome FP7 Calls

Back to top ↑

Mytalk
Add to My Alerts
Company CLC Bio

Category Data management software

Google Ads

AdChoices

Molecular Biology Tools
2000+ Proteins,Antibody, Kits, cDNA Save Time, Save Cost, Save Trouble

RNA-Seq $998/20million rd
Guaranteed 20million seq reads/samp many species covered,bioinfor anays
www.otogenetics.com

Software for Chemistry
Leading solutions in chemical platform & desktop applications
ChemAxon.com

Sequencing services
De Novo Sequencing; Resequencing; Transcriptomics; Metagenomics
www.microsynth.ch

Next Gen Sequencing,Spain
Transcriptomics, De novo, MetaGeN! 454FLX Plus 700bp, illumina&more
WWW.lifesequencing.com

Contact CLC Bio

Company profile and news

Científicos investigan los mecanismos que determinan el destino de una célula embrionaria

14 de Febrero de 2012

Un total de ocho centros académicos, tres empresas biotecnológicas y una compañía farmacéutica, reunidas bajo el nombre de 4DCellFate, han iniciado este martes una investigación para descubrir los mecanismos que determinan que una célula embrionaria se convierta en un tejido y no en otro.

Share

Un total de ocho centros académicos, tres empresas biotecnológicas y una compañía farmacéutica, reunidas bajo el nombre de 4DCellFate, han iniciado este martes una investigación para descubrir los mecanismos que determinan que una célula embrionaria se convierta en un tejido y no en otro.

Cuando un individuo empieza a desarrollarse, las células madre embrionarias, inicialmente indefinidas, empiezan a dividirse para luego convertirse en los distintos tejidos --como neuronas, músculos o células sanguíneas--, "pero aún se desconoce cual es el mecanismo que determina que una célula se convierta en un tejido y no en otro", han explicado a Europa Press fuentes del equipo de investigación.

De descubrir el condicionante que determina este proceso, se podrían cultivar células en el laboratorio y convertirlas en el tejido deseado para probar fármacos directamente sobre ellos sin la necesidad de implicar al enfermo, evitando así posibles fracasos, entre otros.

Tras recibir la financiación solicitada a la Comisión Europea, un total de 12 millones de euros, el equipo de investigadores ha realizado su primera reunión en Barcelona para elaborar la estrategia a seguir.

El equipo de 4DCellFate está coordinado por el responsable del Centro de Regulación Genómica (CRG), Luciano Di Croce, quien ha destacado esta investigación para la mejora de la medicina regenerativa.

Fuente: QUE-Europa Press

Volver

FlandersBio
BUILDING BIOTECH BRIDGES

you are here:

News

FlandersBio informs you about important regional and national life sciences news. Send us your news. If your news is of interest to the life sciences community, we will post it on our website.

FLiACT: studying the fruit fly's mini-brain to understand complex brain functions

13/02/2012

The FLiACT project (Systems neuroscience of Drosophila: from genes to circuits to behaviors) has been launched today with the objective of interconnecting 8 European research institutes and 3 industrial partners from different complementary fields of neuroscience (from molecular genetics to bioengineering). FLiACT aims to create a unique training network to improve new areas of research in neuroscience and also to foster relations with research institutions like the Janelia Farm Research Campus, of the Howard Hughes Medical Institute. This initiative is funded by the European Commission and coordinated by Dr. Matthieu Louis from the Centre for Genomic Regulation in Barcelona (Spain).

Understanding how the brain functions is one of the most important questions that remains unanswered at the dawn of this new century. This question embraces mechanisms spanning multiple levels of description: from genes to biochemical pathways, to circuits of neurons, to specific behaviors.

During the last decades, the tiny fruit fly Drosophila melanogaster has turned into a premier model system to study how we perceive and interpret information arising from our senses, such as smell and vision. Drosophila has also emerged as a powerful model to study the genetic bases of neurodegenerative diseases affecting humans. With a million times fewer neurons than humans, they will shed light on the functional organization of the neuronal circuitry of the fly brain.

The mission of the FLiACT project is to allow a group of 12 young European scientists to be trained in cutting-edge neuroscience. Through collaborative and personalized research projects, the FLiACT fellows will seek to elucidate how neural circuits are genetically encoded and how neuronal computation controls behavior. Each fellow will carry out a significant part of his/her research in collaboration with the partners of the network through exchanges and joint experiments. The fellows (and mentors!) will also be trained in the most innovative technologies through a series of interdisciplinary scientific workshops on

neurogenetics, neuroanatomy, neuroimaging and behavioural analysis.

Three Small and Medium-sized Enterprises (SMEs) also participate to the project. All fellows will have the opportunity to interact with the private sector, and the SMEs will train them in technology transfer, entrepreneurship, intellectual property management, business presentations, and marketing and project management. In collaboration with the Janelia Farm Research Campus, fellows will have the opportunity to broaden their career perspectives at an international level while contributing to one of the most fascinating fields of modern science.

FLiACT intends to have a timely structuring effect in a strategic area for European research and technology: systems neuroscience. Dr Louis, leader of the Sensory Systems and Behaviour group at the Centre for Genomic Regulation and coordinator of the project, envisions FLiACT as "an unprecedented opportunity for Drosophila systems neuroscience to gain momentum in Europe. This network will allow us to enhance our individual research potential through collaborations. We are really excited that Europe is giving us a chance to progress towards a fundamental understanding of how brains create internal representations of the world and how multisensory signals are integrated to make complex decisions. Given the nature of these questions, working with a "simple" organism amenable to genetics represents an extraordinary advantage. With only 100,000 neurons and highly stereotyped behaviors, the flies represent a perfect tradeoff between simplicity and complexity."

FLiACT European partners:

(Academic)

- Centre for Genomic Regulation, ES
- Vlaams Institute for Biotechnology, Leuven, BE
- Johannes Gutenberg Universität Mainz, DE
- University of Fribourg, CH
- Institute of Molecular Pathology, AT
- Max Plank Institute, Jena, DE
- Institut de Biologie du Développement de Marseille-Luminy, FR
- Champalimaud Centre for the Unknown, PT
- Max Plank Institute, Martinsreid, DE

(SMEs)

- Brainwave-Discovery Ltd, UK
- Peira, BE
- Digital Cell Imaging Laboratories, BE

About FLiACT:

The FLiACT Project, (Systems neuroscience of Drosophila: from genes to circuits to behaviours) is an International Training Network funded by the European Commission under the 7th framework program, and coordinated by Matthieu Louis at the Center for Genomic Regulation in Barcelona.

About Peira:

Peira is a technology provider/integrator and 'applied science' partner for life science groups who want to build new, innovative research or proof of principle set ups. The company has industrial experience in developing tools for pharmaceutical development activities, in vivo/ex vivo and in vitro experimental set ups and imaging automation for researchers in several therapeutic areas, such as neuroscience and oncology. Peira designs, builds and maintains customized research platforms.

Source: FLiACT

Tags: research

2012 © FlandersBio | Disclaimer | website by Glue