



ION CRAFT Project co-funded by the European Commission and coordinated by Newron Pharmaceuticals is being successfully completed.

Milan, Italy - November 23, 2006, The ION Consortium announces today that the two-year research project ION CRAFT has achieved the expected results.

The Project Coordinator, Dr Patricia Salvati from Newron Pharmaceuticals SpA, invites all the interested parties (academia, pharmaceutical and biotech companies, press representatives) to attend the ION Workshop planned for November 30th 2006 in Milan (Italy).

The workshop will focus on the scope of the project and on the scientific and technical results achieved. In addition, the business perspectives of a possible exploitation of the ION initiative will also be presented and discussed.

Background

The scope of ION is the development of an innovative, integrated system for efficient High Throughput Screening (HTS) of molecules for ion channel targets related to important neurological and psychiatric disorders such as epilepsy, pain, depression and neurodegeneration. The most important innovative feature of ION is introducing a suite of new software tools able to accelerate the analysis of the experimental output and the design of the next screening round for drug discovery in ion channels. ION is a co-operative research project financed by the European Commission through the Sixth EU Framework Programme for Research and Technological Development.

The starting date was December 1st 2004 and the project end is November 30th 2006.

The project has been carried out by a group of four specialised European Small and Medium Enterprises (SMEs) sharing complementary parts of the project's overall objectives and based in Italy (Newron Pharmaceuticals S.p.A. and Nikem Research S.r.l.), Germany (Multi Channel Systems GmbH) and Romania (SC IT Romania SRL).

The necessary Research and Technological Development (RTD) assistance has been provided by five academic research institutes located in Italy (Università degli Studi di Firenze, Istituto di Ricerche Farmacologiche "Mario Negri" and Politecnico di Milano), Poland (Polish Academy of Sciences) and Hungary (University of Debrecen).

European benefits and impacts:

The ION SME partners will gain clear commercial benefits from a successful project and a common business plan has been prepared in order to exploit the results worldwide. "The ION project shares the objectives of a number of EU policies, and in particular to speed up the discovery of new drugs in neurological and psychiatric disorders that affect millions of EU citizens. Faster drug screening processes will contribute to both public health and social policy" said Dr Carla Caccia, the ION Project Manager from Newron Pharmaceuticals.



Other companies and groups throughout the world are also engaged in the effort required to transform the existing low throughput techniques into more efficient procedures. "The ION project achievements may represent a European solution

capable to increase the European competitiveness in this important but highly specialised field, if further developed" said Dr Patricia Salvati, the ION Project Coordinator.

Project activities and results achieved:

The existing electrophysiology technology is very important for ion channel drug discovery and based on oocyte recording, uses two separate electrodes to maintain and measure changes in current through ion channels in the membrane. A major innovation of the project is to simplify the existing procedure into a one-electrode system. This is now incorporated into an improved version of the "Roboocyte" platform produced by the SME partner Multi Channel Systems in Germany.

New software to cope with the data generated by the experimental platform has been developed by SC IT Romania ITR, an SME specialized in scientific software. In addition to analysing the data from initial screening, this software will help to the design of subsequent steps in the drug discovery process.

The RTD partners provided the necessary academic research and essential expertise and assisted the SMEs in selecting which specific ion channels and candidate and reference drug compounds should be used. Their high level of knowledge has been also required to validate the outcomes of the new system, ensuring it can be used with confidence by end-users who may be SMEs with limited RTD facilities of their own.

ION Workshop

The achieved results together with an overview of the financing Research and Innovation for SMEs in the Seventh Framework Programme will be presented by the Project's Consortium during the ION Workshop.

Workshop Venue
Politecnico di Milano
Piazza Leonardo da Vinci 32
20133 - Milan (Italy)
November 30th 2006 3.00 to 6.30 pm
Room Castigliano

About Newron Pharmaceuticals and ION Consortium

Newron Pharmaceuticals S.p.A (www.newron.com) is a biopharmaceutical company focused on novel therapies for diseases of the Central Nervous System, particularly Parkinson's disease (PD) and pain. Newron is undertaking phase III trials with safinamide, a unique molecule with multiple mechanisms of action, for the treatment of PD in conjunction with its partner, Serono S.A. which has the rights to develop the compound in PD, Alzheimer's disease, and other cognitive disorders. Newron is headquartered in Bresso, near Milan, Italy.



Multi Channel Systems MCS (www.multichannelsystems.com) offers online data acquisition and analysis of the PC- platform and produces high-end electronic devices for single and multichannel measurements. MCS has its core competence in the field of development and manufacturing of multi channel recording systems and automation.

Nikem Research (www.nikemresearch.com) is a chemitechnology company spun-off from GSK and offers a full range of medicinal, combinatorial and computational chemistry services, products and partnering possibilities for the pharmaceutical and biotechnological industries.

SC IT Romania (www.itr.ro) is an emerging software company in a candidate member state with important links with the Italian software industry (e.g. BBS Software) and it has solid experience in developing CRM applications, B2B projects, ASP applications, document management and Work Flow Automation solutions with international customers.

The University of Debrecen (www.unideb.hu) is a multi-disciplinary public research and educational body affiliated to the Ministry of Education. The major scientific activities are connected with the cellular and molecular basis of pathology of human diseases with a high socio-economic impact. The Department of Anatomy and Histology is under the supervision of Prof. M. Antal, a well recognized leader in the field of neuroanatomy and neurophysiology, in particular motor and sensory neural circuits in the spinal cord.

The Department of Preclinical and Clinical Pharmacology of the Università degli Studi di Firenze (www.pharm.unifi.it) is a large teaching, research and clinical institution offering PhD and master programmes in Pharmacology and Toxicology. The unit of Neuroscience is led by Prof. F. Moroni, a full senior Professor widely recognized for significant research into glutamate neurotransmission, excitotoxicity and post-ischemic neuronal death.

The laboratories involved in the project are part of the Institute of Pharmacology of Polish Academy of Sciences (www.if-pan.krakow.pl) a non-profit Institution well known for brain disease studies and development of novel methods for their treatments. In the laboratories of Prof. K. Wedzony, Head of Pharmacology and Brain Biostructure, several studies are carried out at various experimental stages, from molecular to behavioural level in the field of depression and schizophrenia.

Istituto Ricerche Farmacologiche M. Negri (www.marionegri.it) is a non-profit Institution which is very well known for its high scientific reputation in the International Scientific Community which has gained recognition in the field of both basic and clinical research. The Institute has developed a range of skills, each giving specialized findings which can then be coordinated "under the same roof" in order to obtain an overall picture of biomedical problems.

Dr. A. Vezzani, Chief of Experimental Neurology Lab., has great experience in biochemical and molecular mechanisms involved in the ethiopathogenesis of epilepsy.

The Politecnico di Milano (www.elet.polimi.it) is one of the largest technical universities in Italy, offering Bachelor, Master and Ph.D. courses in Engineering and Architecture.



The "Electronics and Informatics Department", coordinated by Prof. Gini, covers a broad area of research from micro electronics to telecommunication, from system science to computer science. In particular it is widely recognized for its research in the field of Artificial Intelligence: learning from data, knowledge-based systems, ensembles of classifiers, planning, vision and humanoid robotics.

The assistance of BICO in the preparation of the ION project proposal is gratefully acknowledged. BICO Srl (www.bicogroup.com) is a consulting company specialized in the EU RTD policy implementation and in research funding.

Contact Person

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