

Editorial

Dear Partners, Researchers and Supporters of NeuroPrion,

We are pleased to present this newsletter keeping you posted on the latest Neuroprion developments. It includes updates on two important themes: Animal Surveillance and Risk, as well as information on a new tool for Neuroprion researchers "eDOC".

We know that many of you are eagerly awaiting the opening of a new series of calls for funding opportunities in Neuroprion through EOI, this will shortly be decided at an Executive Committee meeting in June.

Finally, we would like to remind you that the Abstract Submission Deadline for our next Neuroprion Meeting in Düsseldorf: Prion 2005 (<http://www.prion2005.com>) is June 20th.

With best wishes from the Editorial committee:

Jean Philippe Deslys, Sylvain Lehmann, Jens Schell, Steve Simoneau.

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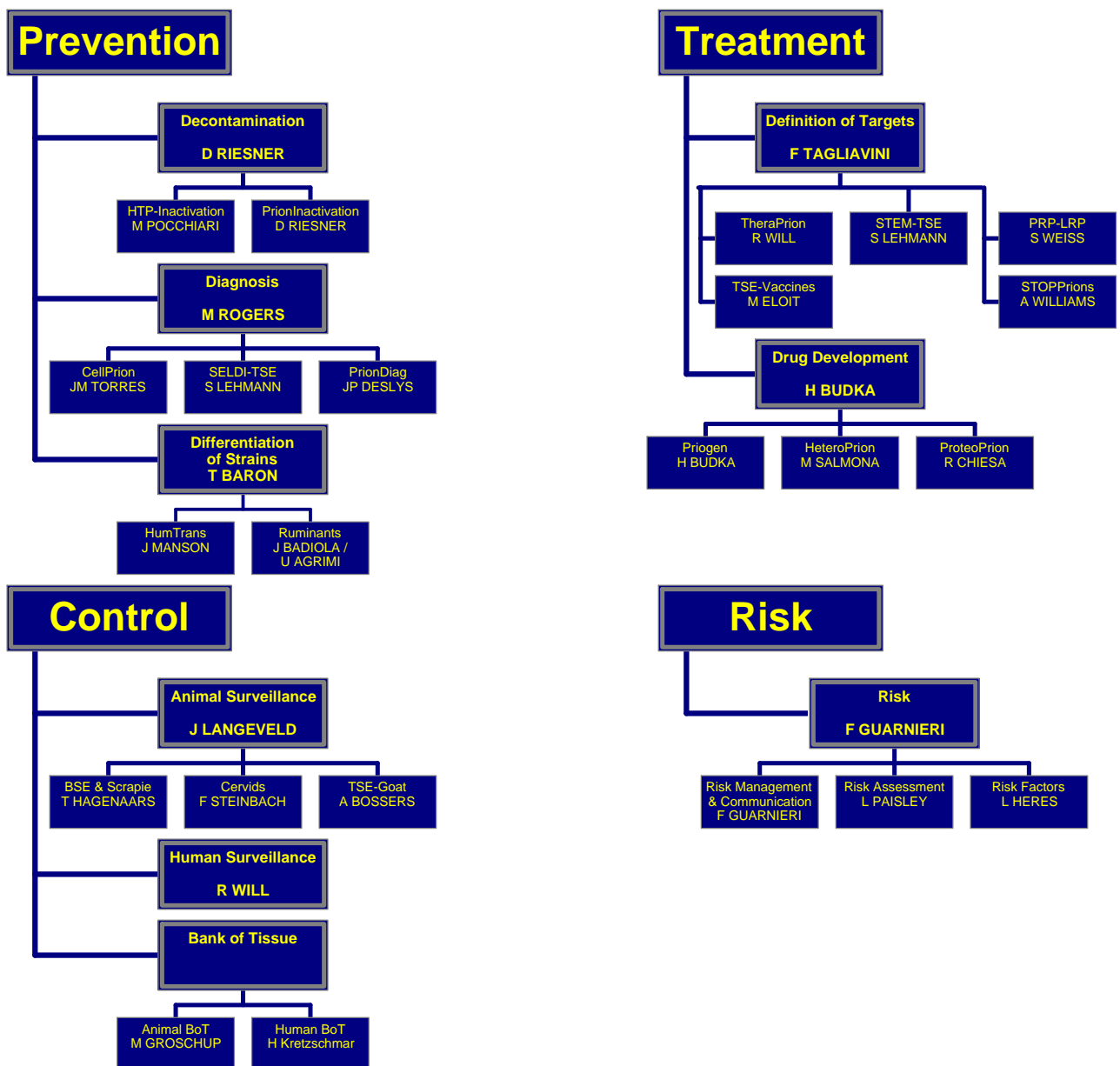
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NeuroPrion's Vertical Activities

The vertical activities of Neuroprion are covering all the four research areas involved in prion diseases. These areas – Control, Risk Analysis, Prevention and Control – were subdivided into different themes each led by an Thematic Leader. According to the priorities that arose during the first Expression of Interest, i.e. the internal call of NeuroPrion, taskgroups were implemented in the different themes. The structure of NeuroPrion's vertical activities is shown in the following diagramme. Within the following editions of this newsletter the different themes will introduce their activities starting with the Themes Animal Control and Risk in this issue.



Theme: Animal Surveillance

Thematic Leader: Jan Langeveld

Central Institute for Animal Disease Control-Lelystad (CIDC-Lelystad), The Netherlands

The coordination and reinforcement of the surveillance of animal transmissible spongiform encephalopathies is one of the priorities of NeuroPrion. The exchange of the available information regarding the different national activities and the epidemiology will be the basis for determining TSE control and management strategies in Europe.

According to the different animal TSEs three task-groups were established:

- | | | |
|----------------------------|-------------------|----------------------------------|
| • Control of BSE & Scrapie | Thomas Hagenaaers | ID-Lelystad/ASG, The Netherlands |
| • Cervids | Falko Steinbach | IZW, Germany |
| • TSE-Goat | Alex Bossers | CIDC-Lelystad, The Netherlands |

Task-group: Control of BSE and Scrapie

This group is comprised of 10 institutions of NeuroPrion involving 14 individual researchers. Its activity is focussed on the analysis of the available data on surveillance, modelling and epidemiology on scrapie and BSE within the countries of the different partners. Concise reviews of the current developments and needs as well as descriptions of possible approaches to address them were produced during the first period (available to NeuroPrion members via virtual infrastructure – eDoc). Because modelling and data analysis are closely linked to risk assessment and risk management, there are combined meetings with the Theme “Risk”.

Surveillance:

Development of statistical methods to optimize and evaluate surveillance strategies at low prevalences (BSE and scrapie). This includes cost reduction through reducing the surveillance intensity in accordance with TSE status.

Transmission modelling:

Scrapie: Mathematical modelling of within-flock and between-flock scrapie transmission. Using available data for calibration and validation of scrapie transmission models

BSE: Mathematical modelling, and optimisation of surveillance strategies.

Epidemiological data (including demographic)

Patterns in existing data and identification of further data needed.

Task-group: Cervids

This subgroup is comprised of 4 partners of NeuroPrion and collaborates with external experts mainly from North America to transfer expertise on chronic wasting disease. It intends to form the basis for a European survey and risk assessment on chronic wasting disease, which does not exist on a national or European scale in the field of TSEs in cervids. Exchanging the experience and the available data on the different cervid species will allow the design of an appropriate EU survey. Therefore techniques to analyse cellular and disease related prion protein in European cervids have to be evaluated and standardised. As a final result the adjusted project might elucidate whether previously made assumptions based on CWD in North America have sufficient scientific basis for a European approach and add to our knowledge on TSE in cervids by approaches resulting from alternative hypothesis.

Task-group: TSE-Goat

This task-group aims at a more intense research collaboration on TSEs in goats between the various countries. The group comprises 6 NeuroPrion members, the involvement of external experts and later joined research groups. It intends to form the basis for a European research project on the survey and control of TSEs in goat with a special emphasis on genetic susceptibility. Summarising available and collecting new data from partners’ ongoing (national) research programmes will enable the design of a preliminary European survey for PrP genotype frequencies of several of the most important goat breeds. Therefore genotype profiling techniques have to be brought together and standardised between the participating countries. The genetic dependency and genetic risk assessment studies will elucidate whether previously made assumptions based on sheep scrapie do have a sufficient scientific basis. In addition it will show if scrapie genetic eradication programmes could be used in goat TSE as well. Currently the group is trying to extend their work on goats by preparing an EU STREP proposal within the 6th framework to study the goat PrP genetics in relation to scrapie and BSE susceptibility and transmissibility.

Theme: Risk

Theme Leader: Franck Guarnieri

ARMINES – Pole Cindyniques, Ecole des Mines de Paris, France

With the abundant information and data available on TSE risk analysis, assessments, epidemiology and otherwise, the NeuroPrion risk network aims to integrate current knowledge by the systematic exchange of information and eventually fill data gaps in the risk analysis domain of TSE. The communication of this risk theme will be achieved through three different visual infrastructures, the public website, the intranet eDoc and the management platform.

After the establishment of the state-of-the-art, the risk theme will be concentrating its efforts in activities such as training mobility and integration (exchange of scientists, and students between different laboratories, training courses and summer schools) during the next two phases. Keep posted to the newsletter for future announcements of PhD student, post doctorate and technician exchanges within this theme.

Through the coordination of the risk theme an important collaboration has been established with the task group – control of BSE & scrapie active in the Animal Surveillance theme composed of multidisciplinary TSE experts, working in the areas of risk analysis, surveillance, modelling and epidemiology for the reinforcement of integration activities.

Risk task-group: Establishment of three sub-groups:

- | | | |
|--------------------------------------|------------------|--------------------------------|
| • Risk Assessment | Larry Paisley | DFVF, Denmark |
| • Risk Factors | Lourens Heres | CIDC-Lelystad, The Netherlands |
| • Risk Management
& Communication | Franck Guarnieri | ARMINES, France |

Describing the state-of-the-art and addressing definitional issues and added value versus limits are the key objectives of the first phase of this risk sub-groups. Regulators, institutions and academia have created abundant but diversified critiques of information used for risk assessment, risk management and risk communication, detailing strategies, standards and policy guidelines. By researching and reviewing these information sources the NeuroPrion risk group will evaluate the TSE risk knowledge base, identify data gaps and develop a state-of-the-art to meet the needs of NeuroPrion. The first year was dedicated to collecting published, unpublished and web based references pertaining to risk analysis of TSEs and reviewing and evaluating these references. Methodologies have been studied, broken down, simplified and categorised by the sub-groups.

The eDoc system will be applied to facilitate searching through a systematic approach of TSE risk publications and review material.

Aside from, but however linked to the establishment of the TSE risk knowledge base, a collaborative review coordinated by Larry Paisley was written by the Neuroprion risk assessment subgroup on the state-of-the-art of TSE risk analysis and has been submitted for review. Collaborative work at this level really emphasises the value of this NeuroPrion network.

Inside NeuroPrion: Meetings and Workshops

PrionDiag Taskgroup Meeting in Paris: July 4, 2005

Workshop on the progress of the partners' activities on detecting disease related prion protein in peripheric tissues and body fluids.

SELDI-TSE Taskgroup and Workshop Meeting in Montpellier: August 24-25, 2005

Meeting on the progress of the partners' activities on identifying blood surrogate markers of TSEs. This will be followed by a workshop on the SELDI Proteomic technology. Some places are still available for the workshop, please contact us for further information:

secr-lehmann@igh.cnrs.fr

STEM-TSE Taskgroup Meeting in Montpellier: August 23, 2005

Meeting on the progress of the partners' activities on using stem cells for TSE therapeutics.

CELLPRION-test Taskgroup Meeting in Montpellier: August 23, 2005

Meeting on the progress of the partners' activities on developing new TSE cell culture models.

e-Doc: a collaborative workspace for NeuroPrion members

eDOC is a private area where NeuroPrion researchers can store, exchange, and work collaboratively on documents related to the NeuroPrion consortium.

We, the management group, use eDOC every day and have found it to be quite useful. Like anything else, there is a small learning curve when you start using this tool, but it is totally worth the initial effort. To help you, we have created a short and detailed instruction manual which allows you to learn quickly and efficiently to use this powerful tool. You can find it on the home page of the Neuroprion website: <https://project.neuroprion.org/>

Let me remind you of some of the great advantages this tool offers each of you:

- No limit on size of stored documents (for some of our work, we uploaded a 180 Mb file onto eDOC without any problem).
- Accessible from anywhere in the world (need an Internet connection).
- Access right protected work areas.
- A virtual calendar displaying NeuroPrion task group meetings and other events (workshops, conferences, etc.).
- An important news bulletin on the home page.
- Your own private area in eDOC not accessible by anyone else, where you can store and organize any documents you like (word, pdf, powerpoint presentations, images, others).
- A "useful document" area (containing the NeuroPrion logos in several formats, an endnote reference file comprising more than 10500 references of prion articles). More useful sections will be created as eDOC evolves.
- A common bibliographic database.
- Version control (very important when several people are working on the same document).

If you want to be part of the eDOC community, either send a request to me at steve.simoneau@cea.fr or phone me at +33 1 46 54 84 87.

May eDOC be with each of you!

Steve Simoneau

Scientific events

Prion 2005: Between fundamentals and society's needs – Düsseldorf: October 19 - 21, 2005

The second international conference of Network of Excellence NeuroPrion and the German TSE-Platform respectively is jointly organised by these national and European initiatives.

Organizers: German TSE-Platform & NeuroPrion

Satellite-Meetings of different themes or subprojects are possible during or before the conference, please let us know your requirements as soon as possible and we will inform you about the conditions.



→ <http://www.prion2005.com>

2nd International Dominique Dormont Conference – Paris: December 1-3, 2005

In the memory of Dominique Dormont the second conference on "Host-Pathogen Interactions in Chronic Infections" will be focused on the "Pathogenesis of prion and viral infections"

Organizers: VBCE - D. Dormont Conference 2005

→ <http://www.ddormont-conferences.org>

First International Institute for Complex Adaptive Matter (I2CAM)

Exploratory Workshop on protein aggregation and amyloid formation in systemic and neurodegenerative disease: physical, molecular and biological approaches- 16-19 July 2005, EPFL-Lausanne, Switzerland

→ <http://i2cam.org/i2camyloid/>

Joint Research Centre of the EC: The IRMM



The Institute for Reference Materials and Measurements (IRMM) is one of the seven institutes of the Joint Research Centre (JRC), a Directorate-General of the European Commission (EC). For over 40 years the IRMM has contributed to the development of a common measurement system and provided Europe with reference materials and measurements. It was founded in 1957 under the Treaties of Rome and started operation in 1960 under the name of the Central Bureau for Nuclear Measurements (CBNM). Since then IRMM has developed from a nuclear science oriented research centre to an innovative measurements institute that covers a wide range of measurement problems from food safety to environmental pollution and nuclear safeguards.

Today IRMM is one of the world's largest reference material producers, expert adviser in food safety and quality and bioanalysis as well as a valued provider of reference measurement data. IRMM works in close collaboration with the other institutes of the JRC, and with research institutes, universities and international organisations worldwide.

<http://www.irmm.jrc.be/html/homepage.htm>

IRMM developed reference materials for rapid BSE-tests

Quality assurance of rapid BSE tests is a challenging and constantly interesting issue and well characterised reference materials are the key for an objective and meaningful quality control of all rapid BSE tests. The Institute for Reference Materials and Measurement (IRMM) of the European Commission has therefore developed several types of reference materials suitable for all currently EC approved rapid BSE tests.

Three types of dilutions of stable homogenates are available:

- (i) 'generic homogenates': several dilutions of brainstem of BSE positive cattle in negative brainstem tissue and water.
- (ii) 'Bio-Rad specific homogenates': several dilutions of brainstem of BSE positive cattle in negative brainstem tissue; 20% tissue homogenates in test specific buffer (for Bio-Rad TeSeE test).
- (iii) 'Prionics specific homogenates': several dilutions of brainstem of BSE positive cattle in negative brainstem tissue; 10% tissue homogenates in test specific buffer (for Prionics Check LIA and Western blot).

The homogenates were initially calibrated against brains of BSE-infected bovine transgenic mice and are subjected to regular stability testing. The materials are widely used by test developers and National Reference Laboratories for e.g. quality control or proficiency testing.

For more information please contact W. Philipp at IRMM (Tel. ++32-14-571891, wolfgang.philipp@cec.eu.int).

Open Positions

Postdoctoral position available

Scripps Research Institute in Palm Beach, Florida

Principal Investigator: Corinne Lasmézas, Professor

E-Mail: lasmezas@scripps.edu

Duties & Responsibilities: A postdoctoral fellow position is available immediately in the Department of Infectology to study prion diseases. The project is based on targeted therapy in cellular and animal models of prion diseases.

Requirements: Ph.D. required. Applicants with a good background in recombinant DNA technology, viral delivery, RNA isolation and characterization, cell culture techniques, handling rodents and knowledge about neurodegenerative diseases will receive preference.

Calls and Fellowships

Draft Version of the new Workprogramme of the EC is available now on eDoc.

Within the proposed call in "Food quality and safety" two calls for STREPs are foreseen.

T5.4.5.2 Developing improved TSE inactivation methods (STREP)

This STREP will develop technologies which inactivate TSE infectivity in preferably all of the following substrates: abattoir equipment, abattoir products and meat and bone meal. Technology transfer to a medical setting (medical instruments, blood and blood products) is desirable. The technologies must perform in a manner appropriate to the requirements of the end-user. They should be rapid, cost effective, simple and safe to operate and may produce useful by-products where appropriate. The possible uses of inactivation methods raise sensitive issues and the proposal must address consumer concerns and legislative aspects with the involvement of consumer's organisations. The involvement of SMEs is greatly encouraged. Strong emphasis is placed on demonstration of inactivation by the technologies taking active account of existing research work.

T5.4.5.3 BSE infectivity of milk, milk products and meat derived from goats (STREP)

The first objective of this STREP is to determine the tissue infectivity distribution of BSE after oral exposure of goats through the exploitation of existing research results and through the conduct of additional research. This work should focus on intestines, peripheral nervous tissues, lymph nodes, muscle tissues and milk. The influence of genotype and age should be included. The research should be planned in such a way that the results can be exploited to quantify the risk posed by the consumption of milk, milk products and meat of goats. A second objective is the improvement of transgenic mouse models as acceptable diagnostic assays for BSE in small ruminants that are significantly quicker than the classical mouse panel bioassays.

→ <http://www.cordis.lu/food/workprogramme.htm>

Future research policy developments in Framework Programme 7

TSE research is mentioned in one of the sub-priorities of FP7, where the "Food, agriculture and biotechnology priority aims at building a European "knowledge based bio-economy" to answer the growing demand for safer and healthier food as well as for sustainable use and production of renewable bio-resources". This sub-priority is described in greater detail here (ftp://ftp.cordis.lu/pub/documents_r5/natdir0000001/s_6797005_20050427_100958_2461en.pdf) and states that "...research into the safety of food and feed chains, diet related diseases, food choices and the impact of food and nutrition on health will help to fight food related disorders (e.g. obesity, allergies) and infectious diseases (e.g. transmissible spongiform encephalopathies, avian-flu), while making important contributions to the implementation of existing and the formulation of future policies and regulations in the area of public, animal and plant health and consumer protection...". Should you have questions about any of the topics raised here you are welcome to contact Jeremy.Bray@cec.eu.int 0032 22 99 91 99"

→ <http://www.cordis.lu/fp7/>

Marie Curie Actions 2005

The application for individual driven actions of the Marie Curie Training for 2005 is still open for:

- Marie Curie European Reintegration Grants FP6-2004-Mobility-11
- Marie Curie International Reintegration Grants FP6-2004-Mobility-12

For further details and details on host-driven actions and prizes contact the Marie Curie website:

<http://www.cordis.lu/fp6/mobility.htm>

<http://www.cordis.lu/mariecurie-actions>