

**Journées CHEVREUL 2007**

# **Lipids and Brain: PUFA Metabolism, Function and Protection Against Diseases**

**AFECG and DGF Joint Meeting  
Paris (FIAP Jean Monnet)  
13 & 14 March 2007**

#### **Scientific committee**

Dr Bernadette Delplanque, Dr Philippe Guesnet, Pr Michel Parmentier,  
Pr Werner O. Richter, Pr Friedrich Spener

This "spring meeting" which is traditionally called "Journées Chevreur" will be held during 2 days in Paris as an AFECG-DGF joint meeting under the umbrella of EuroFedLipid.

This symposium will present and discuss the latest basis finding on the role of omega-3 (n-3) polyunsaturated fatty acids (PUFA) in the brain, with major questions:

- What positive roles can be presently attributed to n-3 PUFA in early life development, patho-physiology and prevention of brain diseases?
- What do we know from epidemiological studies on the role of lipid nutrition and PUFA intake on brain functions and human behaviour?

The last part of the meeting will focus on the scientific incoming efforts to provide n-3 LC-PUFA to human beings.

Internationally recognized Scientists in the field of essential fatty acids will focus on new discoveries, burning questions and latest knowledge. One of the highlights of these days will be the "Medaille Chevreur" lecture given by a leader in this scientific field: Dr S. Rapoport, Bethesda, USA, who will emphasize the recent developments of PUFA metabolism in Brain and liver and its interplay and regulation by the diet.

Health professionals, nutritionists, food scientists from academy and public institutions as well as food industrialists active on research, development and marketing will be interested by this conference. The venue will provide excellent networking facilities for delegates coming from different spheres of activity related to lipid nutrition and health effect.

We look forward to welcoming you in Paris.



### **Médaille Chevreur : Dr Stanley Rapoport**

Chief, Brain Physiology and Metabolism Section, National Institute on Aging, NIH, Bethesda

**Regulation by diet of brain and liver metabolism  
of nutritionally essential polyunsaturated fatty acids**

## Tuesday, 13 March 2007

- 8h30** → Registration  
**9h00** → Opening remarks – Dr B. Delplanque, President of AFECG  
– Pr U. Bornscheuer, President of DGF

### METABOLISM OF PUFA

**Chair: Dr B. Delplanque / Pr U. Bornscheuer**

- 9h15** → Lipids in evolution - were they the masters of the DNA?  
Pr M. Crawford, Institute of Brain Chemistry, London Metropolitan University, United Kingdom  
**9h45** → Modelling n-3 PUFA incorporation in nervous cells.  
Dr J.M. Alessandri and Dr Ph. Guesnet, INRA, Paris, France  
**10h15** → Coffee break

### PUFA FOR BRAIN DEVELOPMENT IN EARLY LIFE

**Chair: Dr Ph. Guesnet / Dr H. Demmelmair**

- 10h45** → Perinatal long chain polyunsaturated fatty acid supply - are there long term consequences?  
Dr H. Demmelmair, University of Munich, Germany  
**11h15** → n-6 fatty acid metabolism in the newborn: is linoleic acid sufficient in meeting the demand for arachidonic acid?  
Drs R. Pawlosky, A. Llanos, Y. Lin, N. Salem and R. Uauy, NIH, Bethesda, USA  
**11h45** → DHA involvement in neurotransmission process.  
Dr S. Vancassel, INRA, Paris, France  
**12h15** → Effects of n-3 PUFA deficiency on the expression of nuclear receptors and synaptic plasticity markers in rat brain.  
B. Buaud, PhD Student, ITERG-Nutrition Dpt/University of Bordeaux, France  
**12h30** → Lunch  
**13h45** → **General Assembly of AFECG (for members only)**

### III - PUFA AND AGING DISORDERS

**Chair: Pr WO. Richter / Dr S. Rapoport**

- 14h30** → n-3 PUFAs, energy substrates and brain function during aging.  
Pr S. Cunnane, University of Sherbrooke, Canada  
**15h00** → Understanding Alzheimer's disease prevention - the role of lipids and diet.  
Pr T. Hartmann, University of Homburg/Saar, Germany  
**15h30** → Neuroprotective effects of DHA in Alzheimer's disease models.  
Dr T. Pillot, Inserm, Nancy, France  
**16h00** → Coffee break  
**16h30** → The use of DHA in treatment of patients in an early stage of Alzheimer's Disease.  
Dr M. Bryhn, Lysaker, Norway  
**17h00** → alpha-Linolenic acid treatment confers protection against cerebral or spinal cord ischemia via the TREK-1 channel.  
Dr C. Heurteaux, CNRS, Nice, France  
**17h30** → n-3 PUFAs in health and disease of the retina.  
Dr N. Acar, INRA, Dijon, France  
**19h45** → **Diner: Paris by Night on a cruising restaurant on board of a panoramic boat.**

**Wednesday, 14 March 2007**

#### **IV - PUFA FOR BEHAVIOUR TROUBLES AND RELATED PATHOLOGIES**

**Chair: Dr P. Astorg / Dr B. Delplanque**

- 9h00** → PUFAs and risk of cognitive decline or dementia: epidemiological data.  
Dr P. Barberger-Gateau, University of Bordeaux, France
- 9h30** → n-3 PUFAs and mood disorders.  
Dr P. Astorg, Inra, Paris, France
- 10h00** → Antiepileptic ketogenic diet.  
Dr J. Vamecq, Inserm, Lille, France
- 10h30** → Neuroprotective potential of chronic rapeseed oil diet evaluated by audiogenic seizures test in magnesium-deficient mice.  
Dr N. Pages, Dr P. Maurois; University of Paris XI, France
- 10h45** → Coffee break
- 11h00** → The fatty acid binding proteins (FABPs) of brain and their potential as neurobiochemical markers of brain damage.  
Pr F. Spener, University of Graz, Austria

**11h30** → **Médaille Chevreul : Dr Stanley Rapoport.**  
Chief, Brain Physiology and Metabolism Section, National Institute on Aging, NIH, Bethesda, USA.  
**Regulation by Diet of Brain and Liver Metabolism of Nutritionally Essential PUFA**

**12h30** → Lunch

#### **V - PERSPECTIVES**

**Chair: Pr M. Parmentier / Pr F. Spener**

- 14h00** → Polar lipids: n-3 PUFA carriers for membranes and brain: Nutritional interest and emerging processes.  
Pr M. Parmentier, Pr M. Linder, Pr J. Fanni, ENSAIA, Nancy, France
- 14h30** → Production of very long-chain n-3 and n-6 PUFAs in plants.  
Dr A. Abbadi, NPZ-Lembke, Holtsee, Germany
- 15h00** → Coffee break
- 15h30** → Structured phospholipids as vehicles of DHA and Neuroprotectin D1.  
Pr M. Lagarde, Dr M. Picq, Dr S. Michaud, Pr A. Douteau, Pr M. Guichardant, Inserm and Insa-Lyon, France
- 16h00** → Conclusions  
A. Le Guillou, Vice-President of AFECG

**FIAP Jean Monnet**  
**30, rue Cabanis - 75014 PARIS**



**PUBLIC TRANSPORTATION**

- 1. Metro line 6** - Exit at Denfert-Rochereau or Glaciere station.
- 2. From Roissy-Charles de Gaulle Airport :**  
**RER B** - direction Robinson/Saint Remy-les-Chevreuses. Exit at Denfert-Rochereau Station (10 min walking) or take the metro line 6 direction Nation (see 1.)
- 3. From Orly Airport :** take Orlybus or Orlyval to Denfert-Rochereau, Exit at Denfert-Rochereau Station (10 min walking) or take the metro line 6 direction Nation (see 1.)

**DINER -> PARIS BY NIGHT**

On a cruising restaurant on board of a panoramic boat. A wonderful approach of the greatest monuments of Paris by the Seine, with a gourmet meal elaborated by Chef Mr Philippe Groult "Meilleur Ouvrier de France".  
 Boarding: 19h45, departure 20h30 at the Cygnes Island in the middle of Pont de Bir Hakeim close to Eiffel tower 75015 (5 mn from metro Bir Hakeim station, line 6 or RER C Champ de Mars-Tour Eiffel station).  
 For more informations see [www.lecapitainefracasse.com](http://www.lecapitainefracasse.com)

**The organization gratefully acknowledge support by the following companies (as of 12 December 2006)**



# CONFERENCE REGISTRATION

**2007 CHEVREUL MEETING, PARIS, Tuesday and Wednesday 13 & 14 March 2007**

Please return the completed form (one per participant) not later than **16 February 2007** to the following address:

**AFECG**  
**118, avenue Achille Peretti**  
**92 200 NEUILLY-SUR-SEINE**  
**France**

**Phone number : + 33 1 46 37 20 25**  
**Fax number : + 33 1 46 37 15 60**  
**E-mail : afecg@fncg.fr**

Pr     Dr     Mrs     Mr

Surname : .....

First name : .....Title : .....

Company or Institution : .....

Address : .....

Postal Code : .....City : .....Country : .....

Telephone: .....

Fax: .....

E-mail: .....

## Chevreul Conference 2007 registration fees

**With dinner\*\*  
(deadline : 16/02/07)**

Academic/Institutional	<input type="checkbox"/> 150 €	<input type="checkbox"/> 220 €
Industrial – member*	<input type="checkbox"/> 300 €	<input type="checkbox"/> 370 €
Industrial – non member**	<input type="checkbox"/> 380 €	<input type="checkbox"/> 450 €
Retired	<input type="checkbox"/> 100 €	<input type="checkbox"/> 170 €
Student (with justification)	<input type="checkbox"/> Free	<input type="checkbox"/> 70 €

\* Member: AFECG, DGF or EFL

\*\* Due to the limited number of places, reservations will be made on a first come - first served basis

I wish to become an AFECG member (membership fees: 60€)

### Payment (registration forms must be accompanied by full payment):

The registration fees include entry to the Scientific Conference, the list of attendants, the book of abstracts, lunches and coffee breaks. For students, lunches are not included.

I have enclosed a cheque of ..... Euros with this form (order: AFECG)

My payment has been effected by bank transfer to BNP PARIS CHARTRES

<b>Bank Code:</b>	30004	<b>Key : 48</b>
<b>Agency:</b>	00850	
<b>Account number:</b>	00010123813	
<b>IBAN:</b>	FR 76 3000 40085000 0101 2381 348	

**Please enclose a copy of the bank transfer with your registration form. Bank fees are at your charge**  
**IMPORTANT : Please do not forget to mention the name or code member of the attendee**