

Report from the CASCADE Summer School on Nuclear Hormone Receptors

Ecole Normale Supérieure de Lyon, Lyon, France, September 13-17, 2004

The organiser of the Summer School was Vincent Laudet (ENS Lyon, France).

31 PhD students and post docs participated in the Summer School and 32 senior scientists were engaged as speakers. The participants represented nine European countries. 18 participants and 16 speakers were from CASCADE partner groups. The Summer School started with an Ice Break on the evening of the arrival day. A number of speakers were present throughout the school allowing for ample time for discussion between students and senior scientists. 25 posters were presented and discussed at the daily poster sessions. The lectures covered the following topics: Overview of the nuclear receptor superfamily, Nuclear receptors in physiology and diseases, Coregulators and target genes, 3D structures, Bioinformatics and structural genomics, Genetic dissection of nuclear receptor function in mice, Alternative model systems, Endocrine disruptors. The sessions included both overview lectures and lectures on more specific topics. The lectures were 40 min long and after each lecture 20 min was allocated for questions and discussion. The discussions were very active and engaged both students and speakers. The participants digested the lectures at the end of each day by completing a reflection form. An abstract book containing abstracts both from the speakers and the posters was handed out and after the Summer School electronic forms of the lectures were available for the participants. The social programme included a banquet. The standard evaluation form for CASCADE Summer Schools was used for evaluation by the participants. The students were generally very satisfied with the Summer School. Suggestions for future Summer Schools were to include sessions with small group discussions to enhance the learning of the students and to have fewer lectures and more time for social programme to increase the interaction between the students. These improvements will be included in future CASCADE schools.

Johanna Zilliacus, CASCADE Teaching Manager

**CASCADE Summer School on Nuclear Hormone Receptors
Ecole Normale Supérieure de Lyon
September 13-17, 2004**

Final Program

Each slot corresponds to a 40 minutes talk and a 20 minutes discussion

Sunday, September 12, 2004

18H-21H : Registration and Ice break - MAIN TEACHING HALL

Monday, September 13, 2004 - AMPHI BIOLOGIE-GEOLOGIE

Overview of the nuclear receptors superfamily

Chairwoman : Raquel Tavares

9H-9H15 : Johanna ZILLIACUS (Karolinska Institute, Stockholm, Sweden) : Presentation of the CASCADE Network of Excellence.

9H15-10H : Vincent LAUDET (ENS Lyon, France) : Nuclear receptors for beginners.

10H-11H : Hector ESCRIVA (ENS Lyon, France) : Evolution of nuclear receptors in metazoans.

11H-11H30 : Coffee break

11H30-12H30 : Karin DAHLMAN-WRIGHT (Karolinska Institute, Stockholm, Sweden) : DNA microarrays to study nuclear receptors function.

12H30-13H : Poster presentation

13H-14H : Lunch

Nuclear receptors in physiology and diseases

Chairwoman : Edith Bonnelye

14H-15H : Hubert VIDAL (INSERM U449, Lyon, France) : The PPARs : present and future pharmaceutical targets for the treatment of type 2 diabetes.

15H-16H : Bart STAELS (INSERM U545, Lille, France) : PPARs and human diseases.

16H-16H30 : Coffee break

16H30-17H30 : Edith BONNELYE (ENS Lyon, France) : ERs and ERRs in bone development and metabolism.

17H30-18H30 : Franck DELAUNAY (University of Nice, France) : Nuclear receptors and circadian rhythm.

Tuesday, September 14, 2004 - AMPHI BIOLOGIE-GEOLOGIE

Coregulators and target genes (I)

Chairman : Hector Escriva

9H-10H : Hinrich GRONEMEYER (IGBMC, Illkirch, France) : Nuclear receptors and co-activators.

10H-11H : Cécile ROCHETTE-EGLY (IGBMC, Illkirch, France) : How phosphorylations regulate retinoid receptors-mediated transcription.

11H-11H30 : Coffee break

11H30-12H30 : Liliane MICHALIK (University of Lausanne, Switzerland) : PPAR function in mice.

12H30-13H : Poster presentation

13H-14H : Lunch

Coregulators and target genes (II)

Chairman : Frédéric Flamant

14H-15H : Raphaël METIVIER (University of Rennes, France) : *Eppur si muove*. Transcriptional activation by estrogen receptor-alpha : dynamic and cyclical process.

15H-16H : Ana ARANDA (IIB, Madrid, Spain) : Cross-talk between the thyroid hormone receptors and the *ras* oncogene.

16H-16H30 : Coffee break

16H30-17H30 : Frédéric FLAMANT (ENS Lyon, France) : Nuclear hormone receptors target genes.

17H30-18H30 : Poster presentation

Wednesday, September 15, 2004

Alternative model systems - SALLE DES THESES

Chairwoman : Virgine Vlaeminck-Guillem

9H-10H : Patrick PRUNET (INRA Rennes, France) : Stress, physiology and nuclear receptors analysed using fishes.

10H-11H : Barbara DEMENEIX (MNHN Paris, France) : Xenopus as a model to study nuclear receptors.

11H-11H30 : Coffee break

Endocrine disruptors - (I) - SALLE DES THESES

Chairwoman : Virgine Vlaeminck-Guillem

11H30-12H30 : Patrick BALAGUER (INSERM U540, Montpellier France) : How to detect endocrine disruptors using cell-based assays ?

12H30-13H : Poster presentation

13H-14H : Lunch

Genetic dissection of NR function in mice (I) - AMPHI BIOLOGIE-GEOLOGIE

Chairman : Jacques Samarut

14H-15H : Daniel METZGER (IGBMC, Illkirch, France) : Dissection of NR function in mice using the Cre-ER system.

15H-16H : Martin GÖTTLICHER (GSF Neuherberg, Germany) : Transcriptional corepressors of nuclear receptors and histone deacetylases as targets for small molecules.

16H-16H30 : Coffee break

16H30-17H30 : Jacques SAMARUT (ENS Lyon, France) : Dissection of the thyroid hormone functions using mice.

17H30-18H30 : Poster presentation

Thursday, September 16, 2004

Endocrine disruptors (II) - SALLE DES THESES

Chairwoman : Adrienne Anginot

9H-10H : Nicolás OLEA (University of Granada, Spain) : Endocrine disruptors and human health.

10H-11H : Farzad PAKDEL (University of Rennes, France) : Mechanisms of EDC action : fishing endpoints and biomarkers.

11H-11H30 : **Coffee break**

11H30-12H30 : Jean-Pierre CRAVEDI (INRA, Toulouse, France) : Endocrine disruptors in the environment : an overview.

12H30-13H : **Poster presentation**

13H-14H : **Lunch**

3D structures - AMPHI BIOLOGIE-GEOLOGIE

Chairwoman : Stéphanie Bertrand

14H-15H : Jean-Paul RENAUD (IGBMC, Illkirch, France) : 3D structure of NRs : an overview.

Bioinformatics and structural genomics (I) - AMPHI BIOLOGIE-GEOLOGIE

Chairwoman : Stéphanie Bertrand

15H-16H : Marc ROBINSON-RECHAVI (University of California, San Diego, USA) : Bioinformatics of nuclear receptors.

16H-16H30 : **Coffee break**

Endocrine disruptors (III) - AMPHI BIOLOGIE-GEOLOGIE

Chairwoman : Stéphanie Bertrand

16H30-17H30 : John A. McLACHLAND (Center for Bioenvironmental Research, New Orleans, USA) : Endocrine disruptors : an overview.

17H30-18H30 : Ingemar PONGRATZ (Karolinska Institut, Stockholm, Sweden) : Role of the AhR and the AhR partner factor ARNT in Dioxin induced endocrine disruption.

20H : **BANQUET - Restaurant ICEO**

**147, Avenue Jean-Jaurès
69007 Lyon**

Friday, September 17, 2004 - AMPHI BIOLOGIE-GEOLOGIE

Endocrine disruptors (IV)

Chairwoman : Michelina Plateroti

9H-10H : Tyrone HAYES (University of California, Berkeley) : Atrazine as an endocrine disruptor.

Genetic dissection of NR function in mice (II)

Chairwoman : Michelina Plateroti

10H-11H : Adriana MAGGI (University of Milan, Italy) : ER reporter mice.

11H-11H30 : Coffee break

11H30-12H30 : Jan-Åke GUSTAFSSON (Karolinska Institut, Stockholm, Sweden) : LXR and ER signalling.

12H30-13H : Poster presentation

13H-14H : Lunch

Genetic dissection of NR function in mice (III)

Chairwoman : Irma Machuca

14H-15H : Karine GAUTHIER (ENS Lyon, France) : Orphan receptors and metabolism.

Bioinformatics and structural genomics (II)

Chairwoman : Irma Machuca

15H-16H : Jean-Marie WURTZ (IGBMC, Illkirch, France) : Structural genomics of nuclear receptors.

16H-16H30 : Final comments and discussion.