

**ACTIVITÉS**  
**DU 3ème CYCLE ROMAND**  
**EN SCIENCES BIOLOGIQUES**

**1999**

**SCIENTIFIC PROGRAM OF**  
**THE**  
**POST-GRADUATE EDUCATION**  
**COMMITTEE IN BIOLOGICAL**  
**SCIENCE OF THE SUISSE**  
**ROMANDE**

*You can also find us on internet:*

<http://www.3eme-cycle.ch>

**Universities of Bern, Fribourg, Geneva, Lausanne, Neuchâtel,**

**Swiss Institute for experimental Cancer Research (ISREC), and EPFL  
Coordination Committee of the Suisse Romande  
for doctoral students in biological science**

Dear students,

The post-graduate education Committee organizes each year for you :

- a lecture cycle of four days at Villars-sur-Ollon.
- one week practical courses in different research laboratories.
- Round table meetings.
- Seminars.

### **What are the objectives ?**

These activities take place in the framework of post-graduate education of doctoral students in biochemistry and biomedical science, animal biology and plant biology; but they are not only limited to theoretical and practical courses : the objectives are more to promote exchanges between scientists in the Suisse Romande which should allow :

**the acquisition of an overview of the research in the Suisse Romande**

**spend one week in another laboratory**

**discover new techniques**

**widen one's scientific knowledge**

**discuss one's problems with other research workers**

**promote contacts and collaboration between research groups**

All these activities are free of charge and you will find the necessary details in this brochure.

## **All it needs is for you to participate !**

Don't hesitate to take contact with us, we will happily reply to your questions; we will receive with pleasure any suggestions concerning our activities

1999 SCIENTIFIC PROGRAM OF THE  
POST-GRADUATE EDUCATION COMMITTEE IN  
BIOLOGICAL SCIENCE (3<sup>ème</sup> CYCLE ROMAND)

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### **Post-graduate education program in biological science**

The scientific committee of the 3<sup>ème</sup> Cycle Romand in biological Science consists of three sub-committees : sub-committee of plant biology, of animal biology, and of biochemistry & biomedical science. Since the fusion of these 3 sub-committees, which took place in 1979, the post-graduate program has given itself two major priorities :

- (1) the post-graduate education of doctoral students in the 3 disciplines.
- (2) the organization of common activities among these 3 disciplines, which necessitates a coordination in the Suisse Romande in order to have available a sufficient critical mass of doctoral students.

The post-graduate program intended for doctoral students attached to the five universities (Bern, Fribourg, Geneva, Lausanne and Neuchâtel), at ISREC and at EPFL allows participants to acquire theoretical knowledge common to the 3 disciplines in form of minisymposia (one day) and in form of a lecture cycle (four days), organized at Villars-sur-Ollon. In addition, each sub-committee organizes round tables, seminars and practical courses, which are open to doctoral students of the 3 branches.

Such a training program permits each doctoral student to widen his(her) scientific horizons and to acquire basic knowledge and new methodology of contemporary biology.

In addition, the post-graduate committee is anxious to favor activities which are specific to each one of the 3 branches. Only collaboration between the 5 universities, ISREC and EPFL allows us to reach the number of participants which are necessary for the organization of such activities.

Furthermore, following the signature of the cross-border University Convention of the Rhône-Alpes Region (September 25, 1990), we have been active in the last few years in associating french doctoral students with our program particularly in the lecture cycle at Villars-sur-Ollon.

The organizers of post-graduate education program in biological science hope that this brochure will help make the activities of the program better understood and help disseminate information about all its activities among the different research groups of our universities. In the name of the organizers, I welcome you to programs and I invite you to participate in them in large numbers.

The president of the steering  
group of the scientific committee  
of the post-graduate education  
program in biological science

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## Persons responsible for the “3<sup>ème</sup> Cycle Romand en Sciences biologiques”

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President of the scientific committee for the 3<sup>ème</sup> Cycle romand en Sciences biologiques and president of the sub-committee for biochemistry & basic medicine :

Prof. J.-C. Jatton

Département de Biochimie Médicale

Centre Médical Universitaire

1, rue Michel-Servet

1211 GENÈVE 4

Tel. 022/702 54 95, Fax : 022/702 55 02

e-mail:Jean-Claude.Jatton@medecine.unige.ch

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President of the sub-committee for animal biology :

Prof. M. Brossard

Institut de Zoologie

Université de Neuchâtel

11, rue Emile-Argand

2007 NEUCHÂTEL

Tel. 032/718 30 15, Fax : 032/718 30 11

e-mail : Michel.Brossard@zool.unine.ch

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President of the sub-committee for plant biology :

Prof. J.-P. Métraux

Dép. de Biologie, Unité de biologie végétale

Université de Fribourg

3, rue Albert-Gockel

1700 FRIBOURG

Tel. 026/300 88 11, Fax : 026/300 97 40

e-mail : Jean-Pierre.Metraux@unifr.ch

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Secretariat of the 3<sup>ème</sup> Cycle romand en Sciences biologiques :

Ms Thi Nha Huynh

Dép. de Biochimie Médicale

Centre Médical Universitaire

1, rue Michel-Servet

1211 GENEVE 4

Tel. 022/702 54 96, Fax : 022/702 55 02

e-mail : Thi-Nha.Huynh@medecine.unige.ch

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## GENERAL INFORMATION

### **Signing up for different activities of the program**

- . Registration for the lecture course at Villars-sur-Ollon should be made with the secretariat of the post-graduate education program (Ms. Thi Nha Huynh; see mailing address at p. 3).
- . As a general rule, registrations for the other activities organized either in common (minisymposia) or by the different sub-committees (round tables, seminars and practical courses) should be made directly with the organizers (see following pages of the brochure).
- . For the sub-committee of plant biology, registration forms should be given to Laboratory or Institute directors, who will send them to the organizers.

### **Costs**

- . Costs can only be reimbursed to members of a University or Institution bound to the “Convention du 3<sup>ème</sup> Cycle Romand” or of the cross-border University Convention (ATU).
- . Travel expenses : reimbursement is on the basis of half-price tariff of public transport.
- . Accommodation expenses (hotel) are fully paid by the “3<sup>ème</sup> Cycle Romand” convention, insofar as funds permit.

## A l'intention des doctorant(e)s français(e)s de la région Rhône-Alpes

Nous vous rappelons que la Convention transfrontalière universitaire CUSO-ATU (Conférence Universitaire de Suisse Occidentale - Association Transfrontalière Universitaire) met à la disposition des doctorant(e)s français(e)s un fonds spécial leur permettant de participer gratuitement en Suisse Romande aux activités scientifiques post-graduées du 3<sup>ème</sup> Cycle Romand en Sciences biologiques.

Tout renseignement complémentaire peut être obtenu en prenant contact avec le président de la commission scientifique du 3<sup>ème</sup> Cycle Romand en Sciences biologiques dont l'adresse et le numéro de téléphone figurent dans la présente brochure en page 3 ainsi que sur l'affiche générale du programme du 3<sup>ème</sup> Cycle Romand en Sciences biologiques.

*We remind you that the cross-border Convention signed with the Rhône-Alpes region offers a special funding to french doctoral students from Annecy, Grenoble and Lyon to allow you to participate in all scientific programs of the 3<sup>ème</sup> Cycle Romand in biological sciences in the french part of Switzerland.*

*Please contact  
for further information*

Prof. Jean-Claude Jaton  
Dép. de Biochimie Médicale  
Centre Médicale Universitaire  
1, rue Michel-Servet  
CH-1211 GENEVE 4  
Tél. 4122/702 54 95, Fax 4122/70255 02  
e-mail : Jean-Claude.Jaton@medecine.unige.ch  
Thi-Nha.Huynh@medecine.unige.ch

## Registration form

For the lecture cycle at Villars-sur-Ollon on “*Chromosomes: Domains & Dynamics*” (Eurotel Villars, CH-1884 Villars-sur-Ollon) September 26-29, 1999.

Family name, first name : ..... Ms.  Mr.  Dr.

Date of birth : .....

Doctoral student, post-doc., assistant, research worker, prof. : .....

Full address (Univ., Faculty, Inst., Dept.) : .....

Zip code : ..... City : .....

Telephone : ..... Fax : .....

Thesis supervisor : .....

We expect everyone to present a paper\* proposed by a lecturer in a Journal Club session. In addition, we encourage you to display a poster, not necessarily related to the subject of the lecture cycle, or describe your thesis project (15-20 min; max. 6 slides, or transparents). To enable us to constitute J. Club groups (max. 6 doctoral students per group), please list your three best choices (e.g. Monday M1, M2, M3; Tuesday, Tu1, Tu2, Tu3;.... according to the general poster).

1 ....., 2 ....., 3 .....(compulsory)

In addition, poster yes  no  (tick which is relevant)

thesis yes  no  ( “ “ “ “ )

Daily attendance to J. Club sessions during the week is compulsory.

### **Accommodation** :

Date & arrival time : ..... (required for room reservation)

Date & departure time : .....

I wish to share my room with : .....

Date : ..... Signature : .....

**Please send the registration form until *August 30, 1999* to Ms Thi Nha Huynh, Dept. of Medical Biochemistry, CMU, rue Michel-Servet 1, CH-1211 Genève 4; Tel. 022/ 702'54'96, Fax (022) 702 55 02, e-mail: Thi-Nha.Huynh@medecine.unige.ch**

*NB/ Your registration is considered as definite. If you have not canceled it before Sept. 20, 1999, the accommodation costs will be charged to you (except in case of illness with medical certificate or circumstances beyond your control).*

*\* The references to be discussed during Journal Club sessions at Villars-sur-Ollon will be available from the secreteriat of the 3<sup>ème</sup> Cycle Romand.*

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COMMON ACTIVITIES

**Lecture cycle in Villars-sur-Ollon**

**September 26 - 29, 1999**

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**Chromosomes: Domains & Dynamics**

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**Coordinator** : Prof. J.-C. Jaton (Geneva)  
**Organizers** : Prof. D. Shore (Geneva)  
Prof. S. Gasser (ISREC)  
Prof. O. Hagenbüchle (ISREC)  
Prof. J.-P. Métraux (Fribourg)

**Site** : Eurotel Villars, CH-1884 Villars-sur-Ollon

**Accommodation** : double room, half-board

**Eligibility** : This lecture cycle is open to all doctoral students of the “3<sup>ème</sup> Cycle romand” in biological science and to about 10 french doctoral students from the Rhône-Alpes region.

Each participant must present either a publication in the framework of a Journal Club session, or a poster, or an oral communication about his(her) thesis project.

**Proposed themes** : Scientific program, names of speakers and dates of lectures will be indicated by posters that will be dispatched before the end of the summer semester.

Students have from the date of publication of the poster *until August 30, 1999* to register with Ms. T. N. Huynh, Dept. of Medical Biochemistry, University of Geneva, CMU, rue Michel-Servet 1, CH-1211 Genève 4, by returning the registration form on p. 6.

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COMMON ACTIVITIES

Seminary

March 4 & 5, 1999

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Gene therapy and xenotransplantation -  
Technology transfer from public to private domain: scientific,  
legal and ethical aspects

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**Organizers** : M. Imhof, N. Mermod, D. Muller, H. Poltier & R. Wittek (Lausanne)

**Site** : University of Lausanne

**Theme** : Gene therapy has recently been recognized as a potent novel approach to cure human diseases such as cancer. Consequently, several gene therapy protocols are currently evaluated in clinical trials. Xenotransplantation - the transplantation of viable organs from one animal species to another, may be a way to overcome organ shortage in transplantation medicine. However, numerous problems such as graft rejection and infectious disease risks have to be solved before xenotransplantation will become a routine practice.

Several Swiss Universities are currently interested in technology transfer to the private domain as a means of obtaining funds to finance fundamental research. Since academic research is funded by the public domain, legal and ethical aspects of technology transfer have to be considered.

The aim of this series of conferences is to give examples of the potential and the problems of gene therapy and xenotransplantation, including legal aspects, and to address legal and ethical issues related to technology transfer.

**Registration** should be sent by **February 5, 1999** to: Prof. Riccardo Wittek, Institut de Biologie animale, Bâtiment de Biologie, 1015 Lausanne, Tel. 021 692 41 12, Fax. 021 692 41 15, e-mail: Riccardo.Wittek@iba.unil.ch

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**Registration form:** "*Gene therapy & Xenotransplantation*"

Prof. R. Wittek, Institut de Biologie animale, Bâtiment de Biologie, 1015 Lausanne

Name : ..... First name : ..... Birth date : .....

Institute, University : .....

Academic position : ..... Professional address : .....

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Tel. : ..... Fax: ..... e-mail : .....

Date : ..... Signature : .....

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COMMON ACTIVITIES

**Minisymposium**

**September 17, 1999**

**up to 200 participants**

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**Recombinant Adeno '99: somewhere between  
the lab & the clinics**

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**Organizers** : S. Brenz Verca & S. Rusconi

**Site** : Inst. of Biochemistry, University of Fribourg

**Theme** : In recent years, adenovirus has been appreciated as a versatile tool for transgene expression and has also been widely used for somatic gene therapy preclinical and clinical protocols. Due to their broad host range and to their ability to infect non-dividing cells, recombinant adenoviruses can be used to very efficiently transfer genes in cell cultures and *in vivo*. This symposium will bring together the recent experiences in this field by inviting to present their work representatives of Swiss and International teams involved in this research. There will be the possibility to display posters.

The registration form is through Internet, at <http://www.unifr.ch/nfp37> as of March 1, 1999. Additional information should be addressed to Prof. Sandro Rusconi, Inst.de Biochimie, Université de Fribourg, Pérolles, CH-1700 Fribourg (tel. 026 300 8656, fax 026 300 9735, email: [Sandro.Rusconi@unifr.ch](mailto:Sandro.Rusconi@unifr.ch)). **Deadline for registration: September 6, 1999.**

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BIOCHIMIE ET MÉDECINE FONDAMENTALE

and

EUROPEAN MOLECULAR BIOLOGY NETWORK (EMBNET)

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**Advanced Course**

**March 1 - 5, 1999**

**20 - 25 participants**

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INTRODUCTION TO COMPUTER MODELLING:  
3D-STRUCTURE OF PROTEINS

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**Organizers :** L. Falquet (SIB-ISREC), C.V. Jongeneel (IT Office, Ludwig Institute) & M. Peitsch (SIB-GWER)

**Site :** Bâtiment d'Informatique, EPFL, Ecublens-Lausanne

**Theme :** The rapidly increasing number of nucleotide and amino acid sequence data has become an important source of information for biomedical researchers. However, the prediction of 3D (three-dimensional) protein structure on the basis of sequence information still remains a major challenge in biocomputing. The combination of homology-based modelling, sophisticated computational chemistry methods, and threading approaches are providing increasingly accurate prediction tools to the molecular biologist's workbench. Participants will learn about the techniques used for protein 3D structure determination, classification, comparison and prediction. The course will emphasize the use of the Swiss-Model automated modelling program and the Swiss-PDB viewer visualization software.

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**Registration :** Through Internet only, at <http://www.ch.embnet.org> before *February 5, 1999*. Additional information about the course is available at the same address. To be informed of the activities of the Swiss EMBnet node, please subscribe to the **embnet-news** mailing list using the corresponding Web pages.

**Practical Course**

**June 21 - 25, 1999**

**10 - 12 participants**

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**Interfacing 2D-gel electrophoresis with the identification of proteins:  
sample preparation, characterization using HPLC,  
microsequencing and mass spectrometry**

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**Organizers** : G.J. Hughes, S. Frutiger & J.-M. Gabriel

**Site** : Department of Medical Biochemistry, CMU, University of Geneva

**Theme** : The aim of this course is to 1) teach 2D-gel electrophoretic techniques; 2) get familiar with the various methods to extract a protein spot ready for characterization; 3) perform the characterization/identification using HPLC, microsequencing and mass spectrometry. The methodology will involve: - staining of gels or membranes after gel blotting onto PVDF; amino terminal sequencing of blotted protein spots; - in-gel or on-membrane proteolytic cleavage of protein spots. Cleaning-up of the digests; - separation of digests on Tris-Tricine gels followed by blotting onto PVDF membranes & sequencing; - separation of digests on 1mm or less (internal diameter) reversed phase columns by microbore HPLC or liquid chromatography-electrospray ionization mass spectrometry (LC-ESI MS) followed by sequencing; - mass fingerprinting using a matrix assisted laser desorption ionization time of flight mass spectrometer (MALDI-TOF MS). This method allows the identification of proteins already existing in databases. The efficiency of such methods to quickly identify proteins, to determine their primary structures as well as their post-translational modifications, will be shown.

**Application and information** : Thi Nha Huynh, Dept. of Medical Biochemistry, CMU, University of Geneva, r. Michel-Servet 1, CH-1211 Genève 4. (Tel. 022/702 54 96, fax 022/702 55 02, e-mail : Thi.Nha.Huynh@medecine.unige.ch). Please file a CV and a summary of your own research activity. **Deadline for registration : May 31, 1999.**

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BIOCHIMIE ET MÉDECINE FONDAMENTALE

and

EUROPEAN MOLECULAR BIOLOGY NETWORK (EMBNET)

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**For beginners**

**Practical Course**

**September 6 - 10, 1999**

**30 - 40 participants**

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INTRODUCTION TO SEQUENCE ANALYSIS:  
SURVIVAL SKILLS IN THE ERA OF GENOME SEQUENCING

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**Organizers :** L. Falquet (SIB-ISREC), C.V. Jongeneel (IT Office, Ludwig Institute),  
Cl. Bonnard (SIB-ISREC) & Ph. Bucher (SIB-ISREC)

**Site :** Bâtiment d'Informatique, EPFL, Ecublens-Lausanne

**Theme :** The advent of large-scale genome sequencing projects has made it important for biologists to learn to make use of this enormous mass of information in their everyday work. The course will cover the organization of the sequence databases, the indexing and retrieval of information, the methodology of sequence comparison, and the integration of these skills for resolving common problems in a laboratory setting. A practical, hands-on approach will be emphasized throughout, using tools that should be available to every biologist working in Switzerland. Emphasis will be on an effective use of resources made available through EMBnet, the European molecular biology network.

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**Registration :** Through Internet only, at <http://www.ch.embnet.org> before *July 1, 1999*. Additional information about the course is available at the same address. To be informed of the activities of the Swiss EMBnet node, please subscribe to the **embnet-news** mailing list using the corresponding Web pages.

**Practical Course**

**September 13 - 16, 1999**

**6 - 10 participants**

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**Construction & handling of  
recombinant adenoviral vectors**

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**Organizers** : S. Brenz Verca & S. Rusconi

**Site** : Inst. of Biochemistry, University of Fribourg

**Theme** : In recent years, adenovirus has been appreciated as a versatile tool for transgene expression and has also been used for somatic gene therapy. Due to its broad host range and to its ability to infect non-dividing cells, it can be used to very efficiently transfer genes in cell cultures and *in vivo*. Among the advantages, we shall cite the high viral titers, the easy manipulation and the availability of reliable helper cell lines. Limitations and disadvantages will be discussed in the course.

The practical stage will include an introduction to basic methods and reagents, packaging cells, modern methods for the construction of full length recombinant genomes in bacteria, virus growth and preparation, infection of cell cultures and possibly of animal tissues, reporter assays. Participants will be allowed to construct a recombinant virus expressing their own preferred gene, if the two following conditions are met: a) they contact the organizers two months beforehand to discuss technical details ; b) they will timely announce their project at the EFBS (We remind you that adenovirus is a BL2 vector !).

The theoretical part will give a concise introduction to the biology of adenovirus and its adaptation as gene transfer vector together with an overview of the most recent technical improvements, in particular of last generation vectors and helper-dependent systems. The last day will be dedicated to a symposium (*Recombinant Adeno '99: somewhere between the lab and the clinics.*) in which current results from Swiss and international teams will be presented and discussed.

**Application and information** : Prof. Sandro Rusconi, Inst. de Biochimie, Université de Fribourg, Pérolles, CH-1700 Fribourg (tel. 026/300 86 56, fax 026/300 97 35, email: [Sandro.Rusconi@unifr.ch](mailto:Sandro.Rusconi@unifr.ch)). Please file a CV and a summary of your own research activity. **Deadline for registration** : *August 25, 1999.*

**Seminar**

**March 11 & 12, 1999**

**Life-history, immunocompetence & resistance against parasites**

**Organizers** : H. Richner (University of Bern) & M. Brossard (University of Neuchâtel)

**Site** : University of Neuchâtel

**Theme** : Evolutionary ecologists, immunologists and parasitologists use different concepts, language and methods to study host-parasite interaction and coevolution. From an evolutionary ecologist's point of view, parasites impose fitness costs onto hosts, promote the evolution of costly defense mechanisms and thereby affect the evolutionary trade-offs between fitness components. Understanding the mechanisms involved recently became a major focus in the work of evolutionary ecologists.

Parasitologists and immunologists study the parasite – host interaction by using molecular and immunological methods. Their interests are mainly focused on the detailed understanding of the intimate molecular interactions between the host and the parasites. One of the objectives is to understand how morbidity and mortality could be avoided.

Bringing together people from both fields in order to discuss major concepts and results should provide an interesting approach to a stimulating mutual understanding.

Completed forms should be returned, before **February 15, 1999**, to H. Richner, Zoology Dept. Bern University, CH-3032 Hinterkappelen-Bern, Switzerland. Tel. (+31) 631 91 26, fax (+31) 631 91 41, e-mail : richner@esh.unibe.ch.

*S*

**Registration Form**

*“Life-history, immunocompetence and resistance against parasites”*, March 11 & 12, 1999

Name : ..... First name : ..... Birth date : .....

Institute, University : .....

Academic position : .....

Professional address : .....

.....

Tel. : ..... Fax: ..... e-mail : .....

Date : ..... Signature : .....

Please tick one:  I wish to present a short paper (20 mins) with the title: .....

.....

I do not wish to present a paper

## BIOLOGIE ANIMALE

**Symposium****September 15 - 18, 1999****Kinship: concept, measurement, evolutionary implications****Organizers :** J. Goudet, L. Keller & N. Perrin, University of Lausanne**Site :** Hôtel de La Sage (VS)

**Theme :** The organisms that coexist in a given place are often related, i.e. they share genes. Relatedness has important consequences, in particular social ones, since it offers the opportunity to transmit genes indirectly, through kin reproduction.

The study of kin selection has recently undergone major developments, thanks partly to some important theoretical advances, and partly to the development of molecular tools that allow direct measurement of relatedness coefficients.

How to measure relatedness, how do kin structures arise, what are their evolutionary consequences, these are the kind of questions our summerschool will address. We plan to invite about six leading scientists from this field, who will present their work and ideas, and conduct discussions. Participants working in this area will also have the opportunity to present their own work.

Completed forms should be returned, **before March 31, 1999**, to Prof. N.Perrin, Inst. of Ecology (Zoology), University of Lausanne, CH-1015 Lausanne, Switzerland. Tel. (021) 692 41 84, e-mail : Nicolas.Perrin@ie-zea.unil.ch

The carrying capacity of the summerschool is 40, including invited speakers. Priority will be given to students from the Universities of western Switzerland, Basel, and the french Rhône-Alpes Region.

Places left open after March 31 will be proposed to students from other Universities.

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**Registration form**

*"Kinship: concept, measurement, evolutionary implications"* Sept. 15-18, 1999

Name : ..... First name : ..... Birth date : .....

Institute, University : .....

Academic position : .....

Professional address : .....

Tel. : ..... Fax: ..... e-mail : .....

I wish to present a (20 min) talk on.....

I propose the following topics for discussion.....

Date : ..... Signature : .....

**Conferences & Practical Course**

**September 21 & 22, 1999**

**Lyme Borreliosis: from a pathogen ecology to the development of a human vaccine**

**Organizers** : L. Gern, B. Betschart & M. Brossard

**Site** : Inst. of Zoology, Parasitology, University of Neuchâtel

**Theme** : Lyme borreliosis is a multisystem inflammatory disease caused by infection with the tick-borne spirochete *Borrelia burgdorferi* and is the most frequent arthropod-borne disease in the Northern hemisphere (more than 10 000 new cases reported each year in the USA). The ecology of the causal pathogen is more complex in Europe than in the USA mainly because of the greater diversity in the *Borrelia* species. Recently the efficacy of a recombinant vaccine was assessed in a human population at risk in the USA. The antigen used in this trial, OspA, is a prominent antigen and experimental studies of active and passive immunization with this protein showed that a good protection was achieved in mice. This is apparently due to the fact that the spirochetes are destroyed in the midgut of ticks before transmission to the host can occur.

In this course, we will review the different ecologies of the disease and their implication on human health. We will follow the various steps of the development of a vaccine from the identification of the protective protein (its production, the laboratory experiments investigating the protective effect, the safety of the vaccine) to the whole procedure required for testing a vaccine in humans.

Completed forms should be returned, **before September 1, 1999** to Dr L. Gern, Inst. de Zoologie, Emile Argand 11, CH-2007 Neuchâtel. Tel. (032) 718 30 52, Fax (032 718 30 01), e-mail: lise.gern@zool.unine.ch



**Registration Form**

*“Lyme borreliosis: from pathogen ecology to the development of human vaccine”*,  
Sept. 21 & 22, 1999, Inst. of Zoology, Parasitology, Univ. of Neuchâtel

Name : ..... First name : ..... Birth date : .....

Institute, University : .....

Academic position : .....

Professional address : .....

.....

Tel. : ..... Fax: ..... e-mail : .....

Date : ..... Signature : .....

## BIOLOGIE ANIMALE

**Seminar & Practical Course****October 6 - 8, 1999****Wetlands: population dynamics in plants & animals****Organizers** : D. Meyer (Fribourg) & C. Neet (Lausanne)**Site** : Department of Biology, University of Fribourg, Pérolles, 1700 Fribourg

**Theme** : What are the possible relationships between ecosystem processes (fluxes of energy and matter) with species richness of communities, or with the dynamics of individual populations, with the genetical polymorphism in populations? Plants and animals are to be treated. Two kinds of approaches to the three questions will have to be considered: the experimental design and the natural experiments with controls. The techniques for using different scales will be presented. For long time scales particular techniques of monitoring and the corresponding time series analysis will be discussed. An effort will be made to bridge the gap between fundamental research and the management or engineering of wetlands. Wetlands include lakeshores, marshes, bogs, riparian forests.

The cycle will be organized in the form of conferences, afternoon workshops chaired by known experts, oral presentations by PhD students, a lab course on computers, and guided visits of La Grande Cariçaie. The number of participants is not restricted.

Completed forms should be returned before **September 1, 1999** to Prof. Dietrich Meyer, Dept. of Biology, University of Fribourg, CH-1700 Fribourg. Tel. 026/ 300 8868, Fax 026/ 300 9741; e-Mail: dietrich Meyer@unifr.ch

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**Registration Form**

“Wetlands: population dynamics in plants &amp; animals”,

Oct. 6-8, 1999, Dept. of Biology, University of Fribourg, CH-1700 Fribourg

Name : ..... First name : ..... Birth date : .....

Institute, University : .....

Academic position : .....

Professional address : .....

.....

Tel. : ..... Fax: ..... e-mail : .....

Date : ..... Signature : .....

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BIOLOGIE VÉGÉTALE

**Seminar & Practical course**

**September 15 - 17, 1999**

**20 participants**

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**Statistical & dynamic approaches  
to ecological modelling**

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**Organizers** : F. Gillet & A. Buttler (& 3 invited speakers)

**Site** : University of Neuchâtel

**Theme** : Overview and up-to-date trends and mechanistic ecological modelling. Application using computer tools.

- static models: spacial regression analysis and canonical ordination, Bayes analysis, fuzzy sets.
- kinetic models: time series, Markov analysis.
- dynamic models: parameter estimation, computer simulation and validation.

Completed forms should be returned *before June 1, 1999* to Dr. François Gillet, Lab. d'écologie végétale & de phytosociologie, Inst. de Botanique, Université de Neuchâtel, r. Emile-Argand 11, 2007 Neuchâtel. Tel. 032/718 23 17, Fax 032/718 21 01; e-Mail: François.Gillet@bota.unine.ch

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**Registration Form**

*“Statistical & dynamic approaches to ecological modelling”*

Neuchâtel, September 15 - 17, 1999

Name : ..... First name : ..... Birth date: .....

Institute, University : ..... Academic position : .....

Professional address : .....

.....

Tel. : ..... Fax: ..... e-mail : .....

I will need a room in Neuchâtel :      yes                      no   

Date : .....                  Signature : .....

## BIOLOGIE VÉGÉTALE

**Round Table****September 20 - 22, 1999****Limited number of participants: first come, first served****Aspects of membrane biology****Organizers** : E. Martinoia, L. Bovet, M. Klein & A. Massonneau**Site** : University of Neuchâtel

**Theme** : The membranes play a central role separating the cell from the environment and inside the cell as barriers between organelles forming a large range of different compartments. During this “round table” we will discuss different aspects of membranes such as the role of membranes in signal perception, the membrane as site of exchanges of ions, metabolites and water.

The goal will be to obtain a general view on the processes and functions linked to membranes and to understand the techniques used to progress in this area of research.

Completed forms should be returned to Prof. E. Martinoia, Lab. de Physiologie végétale, Université de Neuchâtel, r. Emile-Argand 13, 2007 Neuchâtel (Tel. 032/718 22 92/70, fax: 032/718 22 71, e-mail: Enrico.Martinoia@bota.unine.ch). **Deadline for registration: September 4, 1999.**

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**Registration Form***“Aspects of membrane biology”* Neuchâtel, September 20 - 22, 1999

Name : ..... First name : ..... Birth date: .....

Institute, University : ..... Academic position : .....

Professional address : .....

Tel. : ..... Fax: ..... e-mail : .....

I will need a room in Neuchâtel:      yes                          no    

Date : ..... Signature : .....

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BIOLOGIE VÉGÉTALE

**Seminar**

**October 7 & 8, 1999**

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**Global analysis of gene expression in plants**

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**Organizers** : P. Reymond & E. Farmer

**Site** : Inst. of Ecology, Bâtiment de Biologie, University of Lausanne

**Theme** : The seminar will focus on developing domains in plant gene expression analysis. Approximately half of the presentations will be devoted to the global analysis of gene expression (using, for example, cDNA microarrays). The rest of the presentations will concern sequencing projects, functional genomics in plants and other organisms, transposon mutagenesis and other ways of identifying gene function.  
Space for poster presentation will be provided.

Completed forms should be returned to Marie-Madeleine Defago Paroz, Institut d'Ecologie, Biologie & Physiologie végétale, Bâtiment de Biologie, 1015 Dorigny/Lausanne, (Tel. 021/692 41 90, Fax 021/692 41 95, e-mail: Marie-Madeleine.DefagoParoz@ie-bpv.unil.ch).

**Deadline for registration: July 31, 1999.**



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**Registration Form**

*“Global analysis of gene expression in plants”*, Lausanne, October 7 & 8, 1999

Name : ..... First name : ..... Birth date: .....

Institute, University : ..... Academic position : .....

Professional address : .....

.....

Tel. : ..... Fax: ..... e-mail : .....

I will need a room in Lausanne:            yes               no  

I will present a poster:                    yes                       no  

Date : .....                    Signature : .....

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BIOLOGIE VÉGÉTALE

**Practical Course**

**October 11 - 15, 1999**

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**Identification of stress effects on  
plant thiol metabolism**

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**Organizers** : C. Brunold, U. Feller, S. Kopriva & M. Suter

**Site** : University of Bern

**Theme** : The aim of this course is to inform the participants about concepts of stress reactions of plants and to introduce them into the following important methods in this field:

- determination of thiol compounds using HPLC combined with fluorometric detection
- measurements of enzymes involved in cysteine synthesis using radioactive substrates or bioluminescence
- determination of heavy metals functioning as stressors in plants using atomic absorption spectrometry
- estimation of phytochelatins, the heavy metal complexing peptides of plants

Completed forms should be returned to Prof. C. Brunold, Pflanzenphysiologisches Inst., Universität Bern, Altenbergrain 21, CH-3013 Bern (Tel.: +4131-631 49 58, Fax: +4131-332 20 59, e-mail: Ch.brunold@pfp.unibe.ch). **Deadline for registration: September 11, 1999.**



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**Registration Form**

*“Identification of stress effects on plant thiol metabolism”*, Bern, October 11 -15, 1999

Name : ..... First name : ..... Birth date: .....

Institute, University : ..... Academic position : .....

Professional address : .....

.....

Tel. : ..... Fax: ..... e-mail : .....

I will need a room in Bern :      yes                         no  

Date : .....                      Signature : .....