

Central European Center for Women and Youth in Science

INTERDISCIPLINARY SEMINARS ON THE CONDUCT OF SCIENCE

- The **Interdisciplinary Seminars on the Conduct of Science** for Early Career Researchers are organized within the framework of the CEC- WYS European project (www.cec-wys.org)
- They are organized by the French National Institute for Agronomy (INRA) (www.reflexives-lpr.org) and are hosted by the Hungarian Science and Technology Foundation ([website at http://www.tetalap.hu](http://www.tetalap.hu))
- Participants will be Early Career researchers- men and women- from 5 Central European countries: Czech Republic, Hungary, Romania, Slovenia and Slovakia.
- Two seminars are planned: Budapest, October 3-7, 2005 and Bratislava, January 23-27, 2006.

- **The total number of participants is limited to 32 participants (16 per seminar).**
- **The attendance at the seminar is free of charge. The following costs of participation will be covered by the organisers:**

- travel to the venue (flight/train/bus ticket)
- accommodation
- meals on the days of the training

No per diem will be provided!

- **Application deadline for both seminars is 2nd July 2005**, but we are inviting all to apply early as there are only a limited number of places available. Also people, who need a visa to enter Hungary and/or Slovakia should apply early as they need an original invitation letter which will only be provided after confirmation of participation.

We will try to keep this process as simple as possible for you, but make sure you **take time and read through the information available on all websites to avoid any misunderstandings as well as unnecessary delays**. If you have additional questions that are not answered by the information provided on the web, feel free to get in touch with us at marie-claude.roland@wanadoo.fr or eszter.papp@tetalap.hu

Objectives

The aim of the **Interdisciplinary Seminars on the Conduct of Science for Early Career Researchers** is to bring together early career researchers and more experienced colleagues from across Europe, from across disciplines in order to:

- Exchange ideas and views related to issues in the Conduct of Science – in particular gender issues in science, project and knowledge management, ethics and supervision;
- Give all participants the opportunity to reflect on their own practice as researchers, mentors, supervisors and teachers and to obtain further training in these areas;
- Allow all participants to benefit from the experience of their colleagues for the conduct of their research projects and their career development - in particular through practical hands-on workshops providing training in soft skills- ;
- Allow participants to meet with experts from different countries and to network.

Issues related to the Conduct of Science will mainly be collectively discussed during the Issue Seminar on Day 1 **and during the workshops**. Workshops will be conducted with an integrative approach, all experts working collectively to provide **hands-on training** on various soft skills. Topics chosen will be of relevance to early career researchers' projects: **all workshops will make use of the material provided by participants**; for communication workshops in particular, participants are invited to provide experts with samples of their own written productions (papers in progress, abstracts for posters or scientific papers, scientific reports, etc).

Participants are also welcome to present posters for sharing information about their research projects and other information of interest to early career researchers.

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AGENDA FOR THE BUDAPEST SEMINAR 3-7 OCTOBER, 2005

Seminar coordinator is Marie-Claude ROLAND, coordinator, Linguistics and Research Practices (LPR), Young Researchers' Training Programme, INRA, Paris. Experts will be scientists from INRA and Project and Knowledge Management experts from Hungary. Assessment will be conducted by Hungarian expert.

Step by step registration and selection process

- 1 Read information on the web pages, particularly **description of WP5 on Responsible Conduct of Research** (www.cec-wys.org) and **description of the Réflexives® seminars** on www.reflexives-lpr.org.
- 2 Read the **summary** available on the websites
- 3 Fill out and send the **questionnaire** as soon as possible but no later than **2nd July 2005**.
IMPORTANT: the questionnaire, the abstracts required and the motivation letter will serve as basis for the selection of participants. So please make sure you enter all required information.
Send the questionnaire and abstracts (as attachments) by e-mail to marie-claude.roland@wanadoo.fr.
- 4 Further information about venue and travel arrangements will be provided to participants in due time by the Hungarian Science and Technology Foundation (eszter.papp@tetalap.hu)
- 5 Check if you need a visa for entering Hungary and/or Slovakia.

Questions

Please take in consideration that we will refer you to our web pages if the answer to your question is already provided at these web pages, so we would kindly ask you to **first seek information at the web pages**.

If you won't find the necessary information there, please feel free to get in touch with us and we will be glad to help you.

MONDAY, 3. OCTOBER 2005

Participants are expected to check in at the venue on Sunday 2nd October.

9:00-12:30	Issue seminar
12:30 - 14:00	Break for lunch
14:00 - 18:00	Workshops: two groups in parallel, work on each participant's project
	<ul style="list-style-type: none">• Project building, creativity• Building scientific identity• Project management• Knowledge management• Communication and critical thinking
18:30 - 20:00	Free time for discussions
20:00	Dinner

TUESDAY 4., WEDNESDAY 5. OCTOBER 2005

08:45 - 18:00	Workshops: two groups in parallel, work on each participant's project
	<ul style="list-style-type: none">• Project building, creativity• Building scientific identity• Project management• Knowledge management• Communication and critical thinking
With Break for lunch 12:30 - 14:00	

THURSDAY 6. OCTOBER 2005

8:45 - 12:30	Workshops: two groups in parallel, work on each participant's project
	<ul style="list-style-type: none">• Project building, creativity• Building scientific identity• Project management• Knowledge management• Communication and critical thinking
12:30 - 14:00	Break for lunch
14:00 - 18:00	Collective session, debriefing with experts on workshops
18:30 - 20:00	Free time for discussions
20:00	Dinner

FRIDAY 7. OCTOBER 2005

8:45 - 12:30	Workshop on Career Planning
12:30 - 14:00	Break for lunch
14:00 - 17:00	Workshop on Career Planning (continued)
17:00 - 17:30	Closing of the Seminar

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MARIE-CLAUDE ROLAND
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Seminar coordinator is Marie-Claude ROLAND, Linguistics and Research Practices (LPR), Young Researchers' Training Programme, INRA, Paris. Experts will be scientists from INRA and Project and Knowledge Management experts from Hungary. Assessment will be conducted by Hungarian expert.

Enhancing research training and supervision

Improving research training and enhancing the quality of supervision and mentoring of young researchers have become major issues in research and research policy. The European Commission communication entitled "Researchers in the European Research Area: one profession, multiple careers"¹ emphasizes several ideas:

1. The number of researchers and mobility are key to research efforts, excellence and performances;
2. Enhanced supervision and quality training are urgently needed;
3. Well defined training programmes must be implemented to structure the training of researchers in order to comply with the Bologna Process, and link the European Research Area and European Higher Education Area².

The main challenge facing the research community is to mobilize cognitive resources for the knowledge-based society to enhance the capacity to produce, transfer and utilize knowledge. Training young researchers in a transparent and efficient manner is one way to address this issue, if the scientific community is to move away from a much criticized "system of reproduction". As Yehuda Elkana, President of the Central European University in Budapest, notes, there is a need to rethink the training of scientists and "educate the caring scientist".

Views are changing as to what the product of research training is – a dissertation, research or an individual, a new researcher? – and as to the activities and skills involved – research in depth in a narrow area or knowledge and skills in a wider area?

While meaningful efforts are being made to support students' development and training through career development, skill assessment schemes or academic courses, little has been done so far to tackle the issue of supervision and have supervisors and mentors commit themselves to explicit training programmes to really improve the training they must deliver as part of their professional responsibilities.

Communication and responsible conduct of research

Training must not be confined to providing the technical skills necessary to enable young researchers to conduct their research and become independent investigators. It must also teach them the core ethical standards and norms of science as well as the principles of best scientific practice.

Research quality and Responsible Conduct of Research (RCR) are indeed related topics: "Good scientific practice in research and scholarship is essential for the integrity of science at a time when the need to build trust between science and society is becoming ever more important. It is vital that the conduct of science itself is based on the highest ethical considerations."³

All participants in research activities must meet the requirements for good scientific practice in the following key areas:

1. Com (2003) 436, Researchers in the European Research Area: one profession, multiple careers, July 2003, pp. 14-15

2. LARSEN, P.O, Quality in research training, Nordic cooperation on quality assessment of research training, NorFa report, 2004, pp. 10-11

3. European Science Foundation briefing, Good scientific practice in research and scholarship, december 2000.

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1. Designing research so that it has clear objectives, answers a valid scientific question or adds to the understanding of a particular event or concept;
2. Writing protocols and plans in clear and unambiguous terms;
3. Publishing the results of research and protecting Intellectual Property (IPR).

Training objectives and methods

To prepare young researchers to confront the changes and take ownership of their careers, CEC-WYS will offer training in communication and responsible conduct of research; the aim is also to provide them with the skills and reflection to develop into effective supervisors and mentors. The originality of our programme lies in the fact that we work on the two “poles” of scientific activity, project building and communication.

DESIGNING A RESEARCH PROJECT AND DEVELOPING RESEARCH COMMUNICATION

PhD students and young researchers in the first years of their careers share a common challenge, that of building their scientific identity. We defend the idea that the research project plays a fundamental role in structuring thinking, knowledge acquisition and elaboration, and that it strongly contributes to developing autonomy, critical analysis and the capacity to synthesise ideas and experience. The methodological approach to structuring a research project is also key to a successful relationship between supervisors and students⁴

Working actively and methodically on the construction of a research object and of a research project increases the chances for the young researcher to develop more quickly into a reliable and confident scientist. It also prepares her/him to effectively communicate with society.

In the same way, reporting about one’s research results must be mastered at an early stage: mastering communication is indeed key to the elaboration of knowledge. Research activity is organized around a number of communication situations which produce a variety of “intermediary objects”- scientific papers, posters, abstracts, projects, etc.⁵ We support the idea that the production of these objects form an integral part of the research and of the conceptualization processes, and that the research object is built while speech is produced.

OPENING SPACES OF DIALOGUE AND REFLECTIVE PRACTICE

In the training, courses give way to epistemology-in-practice and reflexivity: spaces are opened for debate where Responsible Conduct of Research (RCR), ethics, research quality, supervision, duties and rights of both mentors and students etc. are discussed

The spaces of dialogue are provided for participants to collectively discuss their research projects and research practices with the help of facilitators - researchers specially trained in scientific communication and facilitating techniques- using a proven methodology. Epistemology and ethics are addressed in an active, collaborative environment, and not through courses as is often the case.

4. MACE, G. & PETRY, F., Guide d’élaboration d’un projet de recherche, 2è édition, Presses de l’Université de Laval (Québec), 2000.

5. VINCK, D., Ingénieurs au quotidien, Ethnographie de l’activité de conception et d’innovation, Presses Universitaires de Grenoble (PUG), 1999

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We indeed do not believe that courses are sufficient to deal with such personal and behavioural issues like ethics, Responsible Conduct of Research or rights and duties. It is well known that although regulations and standards exist, and all kinds of booklets are available everywhere, there is no guarantee that all the golden rules will be implemented ; very often the literature is not read or makes little sense to the brave reader. In a widely published paper “On Being a Scientist”⁶ authors emphasize that “Responsible Conduct of Research (RCR) and Ethics are not a complete and finalized body of knowledge, but that ethical issues need to be discussed, explored and debated and that all researchers have a responsibility to move the discussion forward”.

It is firmly believed that young researchers will, in turn, thanks to a “**quality feedback loop**”, become better researchers and better supervisors and mentors; they will also realize that achieving and maintaining excellence as a researcher requires a life-long commitment to continuous professional growth ■

6. On Being a Scientist: Responsible Conduct in Research, Second Edition (1995)
<http://www.nap.edu/openbook/0309051967/html/R1.html>, copyright 1995, 2000 The National Academy of Sciences