

INFLA-CARE e-Newsletter

The e-newsletter of the FP7-funded integrated project 'INFLA-CARE'

Issue 1

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Note from the Project Coordinator

Welcome to the *INFLA-CARE e-News letter*, the biannual publication of the European Commission funded research project INFLA-CARE. This newsletter will be circulated by email, in addition to being posted on the INFLA-CARE web site. I hope you will enjoy the articles we have put together for this issue and that INFLA-CARE news will reach a wide audience who share an interest in our science.



Associate Professor Aris Eliopoulos,
INFLA-CARE Coordinator

The INFLA-CARE research project

INFLA-CARE (Inflammation and Cancer Research in Europe) is a research project entitled *'Understanding inflammation-associated tumorigenesis for the rational design of novel anti-cancer therapeutic strategies'* which is funded by the European Commission under the Seventh Framework Programme (FP7) for Health. The project is coordinated by Dr Aris Eliopoulos at the Foundation of Research and Technology Hellas, located in Crete, Greece. A total of 21 groups from Europe and Israel are participating in the programme, bringing together their multidimensional expertise in cell signaling, disease therapy & modeling, genomics and systems biology, with the aim to promote a better understanding of the role of inflammation in cancer development and to advance new targets for more successful patient therapy. The INFLA-CARE project was officially launched on 1st January 2009 and is funded for 4 years with an EC contribution of € 12,000,000. For more information please visit our web site <http://inflacare.imbb.forth.gr>

Editorial: Women in Science

Over the last decade there has been a concerted effort to tackle the question of gender inequality in research science. However, the fact remains that at a time when more women than ever are achieving PhDs in science subjects, women continue to be underrepresented at higher positions in science. In this *INFLA-CARE* e-newsletter we look at the reasons behind this continuing disparity and how the challenge to keep women in science is being met in a positive way by a member institution of *INFLA-CARE*, the Weizmann Institute, Israel.

In 2010, a cosmetics company in conjunction with the American Association for the Advancement of Science (AAAS) addressed why the pipeline of potential women academics continues to leak, by asking 10,000 US doctoral scientists about barriers to successful careers and abandoning the scientific profession. While both sexes complained about the struggle to find jobs and funding for research, women were much more likely to raise the issue of childcare/family obligations as a major concern.

CHILDCARE

The difficulty in balancing work and family life is of course faced by women everywhere, but deals a heavy blow to post-doctoral women aged 30-40, just as they are crucially trying to publish heavily and establish independence as researchers. For those women who continue to work in research after starting a family, wages for post-doc scientists in many parts of Europe are

insufficient to cover childcare for the hours of work.

For a post-doc on a grant, there may be limited maternity leave available, but there is usually no provision to pay for replacement staff. This is a source of frustration for many principal investigators, irrespective of their sex, who are under pressure to get the work done and publish the results by the end of the grant. With this in mind, EMBO has called for change from grant awarding bodies in response to this problem, suggesting that funds equivalent to the period of leave be made available to resume the project when the person on leave returns to the lab. This approach however, does not solve the problem for projects with a collaborative basis such as *INFLA-CARE*, as the entire project continues to swing forward over the allotted time and adding funds when the project has terminated would not be relevant.

While the last decade has seen the emergence of much welcomed career-break fellowships for re-entry into research, their typically brief duration (one year per child) does not totally ameliorate the 'lost time' resulting from starting a family. The abolition of age limits on fellowship applications can improve career chances for women or alternatively, considering career age and not chronological age would increase the eligibility of women for many applications. Women who undertake clinical training are also disadvantaged by age limits on grants, due to the years required to obtain their clinical qualifications.

CAREER PRIORITY

The EMBO meeting on ‘The glass ceiling for women in the life sciences’ held a decade ago, observed that traditional and practical concerns mean that families tend to give male careers priority, with the result that men’s careers generally develop faster and men earn more. As a result, the woman’s career may suffer long term consequences.

MENTORING

Interestingly, another issue affecting the success of women in science is the availability of good mentors. It is no coincidence that where women have access to positive mentors their academic performance is enhanced. Women are recognised to have excellent natural mentoring skills and where they are represented at all levels of the workplace, the atmosphere is beneficial to both sexes.

SUPPORT FOR WOMEN IN SCIENCE

Many institutions now offer support specifically for women with a long term aim to achieve improved representation of women at all levels of science: EMBO, for example, supports women in science through the establishment of a specific restart fellowship program for women (and men) who resume their research career in academia after a break for childcare. As an organization, it promotes equal treatment of men and women and monitors positions, salaries, allocation of grants and lab space to achieve this. EMBO also promotes flexible employment arrangements and adequate childcare to alleviate obstacles facing women who wish to pursue their career in science.

Sweden however, has gone a step further, as from the mid-1990s it established academic positions at all levels in research institutions which were specifically reserved for women. Additionally in 2004, the Karolinska Institute appointed its first female head in 200 years.

The Weizmann Institute in Israel, also has an active stance in the promotion of women in science and is represented in the *INFLA-CARE* programme by Professors Moshe Oren and Varda Rotter. Varda holds the Norman and Helen Asher Chair of Cancer Research and has managed to combine a glittering career in science with the demands of motherhood. Whilst acknowledging that the challenges facing women in science are many, Varda advocates heightened focus and maintaining the high standard of research as the solution to the challenges facing women in science. “The Weizmann actively encourages women to fulfill their potential as scientists; when women start a family, their salary is reviewed and increased to



accommodate their need for childcare. Aside from the financial support however, it is critical for women to become increasingly focused on their work, to ensure

that they stay ahead in research”. In addition to having many high caliber women scientists as staff, including 2009 Nobel prize winner Ada Yonath, the Weizmann also recently introduced a new National Postdoctoral Award for advancing women in science. This programme aims to help young women conduct postdoctoral research at leading universities abroad, with the long-term

aim of alleviating career bottlenecks and closing the gap between the number of male and female scientists at the highest ranks of academia.

Cutting edge research largely depends on the quality of the pool of future scientists; the untimely exit of women from the arena of research is a blow to both society, which has invested in their training and is a loss to the progress of scientific knowledge for the following decades.

MEET OUR TEAM

INFLA-CARE is comprised of 21 groups spread over Europe and Israel. In this and subsequent issues of the newsletter, we will meet some of the team leaders involved.

Jiri Bartek is Head of the Genome Integrity Laboratory and Professor at the Molecular Pathology Department, Medical Faculty of the Palacky University of Olomouc, Czech Republic. He is also deputy director of the Center for Genotoxic Stress Research of the Danish Cancer Society, Denmark. Research in his lab focuses on elucidating the genome surveillance pathways (so called 'check-points') designed to coordinate the cell fate decisions (cell cycle arrest, DNA repair, programmed cell death) in cells exposed to various types of genotoxic stress.



So while increased focus should be the goal of the individual, the scientific community as a whole must continue to question persistent and consequential obstacles to advancing women in science, with the goal of equal opportunities for all. □

Editorial by Pauline Knox and Aris Eliopoulos,
INFLA-CARE Management Office

One of the long term interests in his lab is development and application of real-time imaging assays enabling direct visualisation of the key molecular events behind the cellular response to DNA damage in living mammalian cells.

Manuela Baccarini is Professor of Cell Signaling and since 2007 Deputy Director of the Center for Molecular Biology at the Max F. Perutz Laboratories in Vienna.



She also serves as coordinator of the International PhD Program "Molecular Mechanisms of Cell Signaling" and corresponding member of the Austrian Academy of Sciences.

The Baccarini group has a longstanding interest in the regulation and the physiological role of the MAPK pathway. Recently, the group has established conditional and conventional knockout mice of the Raf kinases and of their effectors Mek. Knockout studies have defined essential *in vivo* roles of these proteins, several of which are unexpectedly independent of their enzymatic activity, and have changed the way we look at this pathway. The lab continues to focus on deciphering signaling pathways *in vivo* by conditional gene ablation in the mouse.

Angel Nebreda is an EMBO member, and an internationally recognized scientist in the fields of MAPK signalling and cell cycle regulation.



Research in his lab, which recently relocated to the Institute for Research in Biomedicine, Barcelona, is focused on understanding basic mechanisms of cell proliferation and differentiation, in particular how external signals are interpreted by cells to elaborate the appropriate responses. Specifically, this work includes investigation of the mechanisms of signal transduction by the stress-activated kinases p38 α and p38 β and their role in carcinogenesis.

The lab is also involved in the analysis of the regulation and role of the RINGO/Speedy proteins, a new family of CDK activators.

INFLA-CARE Publications 2010

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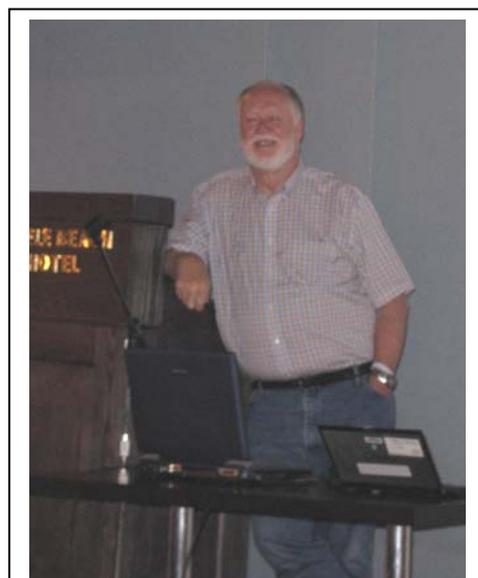
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Meetings

1st Inflammation & Cancer Summer School

This year marked the first INFLA-CARE Summer School which was held on 27-28 September 2010 at Fodele, on the Greek island of Crete.



Professor Curt Harris (NCI, Bethesda), member of the INFLA-CARE Scientific Advisory Board, addressing the attendees of the *Summer School*.

The summer school featured a busy programme, with seminars on signalling pathways, transgenesis, proteomics, inflammatory bowel disease and immune response to cancer chemotherapy by consortium members. Invited external speakers included Karin de Visser (The inflammatory tumour microenvironment), Curt Harris (MicroRNAs, innate immunity and p53 networks in human cancer), Christoph Becker (STAT3 signalling in intestinal inflammation and cancer), Vera Baumans (Ethical and legislative aspects of animal models) and Elengo Manoussaki (Writing successful grant applications).

Students and post-docs attending this meeting also had the opportunity to present their own research as a poster, which they were able to discuss with other scientists involved in INFLA-CARE.

Feedback from the participants of the meeting was very positive; “a great academic opportunity”, “stimulating and comprehensive” and “very well organised”. We would like to sincerely thank all those who contributed to the success of the summer school; your help has enabled vital dissemination of knowledge for the INFLA-CARE programme.

AWARDS AND DISTINCTIONS

Prof. Moshe Oren of the Weizmann Institute, Israel has been elected as President-Elect of the European Association of Cancer Research (www.eacr.org).

Prof. Jiri Bartek (University of Palackeho, Czech Rep and Institute of Cancer Biology, Denmark) was awarded the prestigious

Annual Meeting

The second annual meeting of INFLA-CARE was also held in during September 2010 at Fodele, Crete, in the days preceding the summer school. The meeting was well attended by the consortium and it provided a timely opportunity to update other INFLA-CARE groups of progress and potential collaboration. Comments on scientific progress from Prof. Curt Harris representing the Scientific Advisory Board were very positive; we thank him for his continued support and commitment to the INFLA-CARE programme.

2009 Shai Shacknai Memorial Prize in Immunology and Cancer Research.

Prof. Ron Apte (Ben Gurion University, Israel) was recently awarded the prestigious KKL-JNF Samuel and Paula Elkeles award as the Outstanding Scientist in Medicine for 2010.

