SCIENCE IN SOCIETY

SEVENTH FRAMEWORK PROGRAMME

UAB Universitat Autònoma de Barcelona

DIVERSITY

www.diversity-fp7.eu

DIVERSITY - ISMANAM 2011

Satellite Meeting

Women in materials research institutions: where are we now?

Supporting Action for DIVERSITY Project

"Improving the gender diversity management in materials research institutions"

June 28th, 2011

13.00-14.30h, room **"Mirador"**

Organizing committee: M. D. Baró, S. Suriñach and J. Sort

PROGRAMME

June 28th, 2011 13.00-14.30h, room **"Mirador"**

Opening

M.P. Suárez Rendueles, Vicerrectora de Campus de Excelencia Internacional, Universidad de Oviedo, Spain
M. D. Baró, Universitat Autònoma de Barcelona, Spain

Short talks (Chair: O. Gutfleisch) **13:05-13:45**

M. Calin, IFW Dresden, Germany 10 min

"Success and its evaluation in materials science - does gender matter?"

C. Lekka, University of Ionannina, Greece 10 min

"Gender diversity from the Slovak and Greek perspectives"

P. Rizzi, University of Torino, Italy 10 min

"Materials science institutions in Italy: the role of women "

M.M. Hernando, Campus Gijón, Universidad de Oviedo, Spain 10 min

"Attracting girls to scientific & technological bachelors"

Open discussion on the proposed topic **13:45-14:00**

"Women in materials research institutions: where are we now?"

Lunch **14:00-14:30**

SUCCESS AND ITS EVALUATION IN MATERIALS SCIENCE - DOES GENDER MATTER?

Mariana Calin

IFW Dresden, Helmholtzstr. 20, D-01069 Dresden, Germany

To build a successful scientific/academic career, a scientist must succeed (and be seen by colleagues and superiors to have succeeded) at each of a number of increasingly demanding stages of development. Several studies [1-4] showed that three main key areas of evaluation of scientists' work are:

- Research 'productivity' (authorship of peer-reviewed publications)
- Recognition in the field (citations; invited speakers at major professional society meetings / conferences; member of editorial boards of important scientific journals, member of committees that conduct evaluations of people for hiring, tenure, promotion, and awards; participation in decision-making bodies of funding organizations)
- Grants and contracts (access to institutional resources; capacity to attract external funding; international cooperation and participation in professional networks).

Whether a given scientist succeeds in building a successful career depends on a number of factors, some personal and some institutional, and also of luck or happenstance. Looking at the career paths of men and women scientists who entered science at the same level, women fared worse than their male colleagues in career attainment as measured by academic rank [1].

What does explain the low number of women in senior scientific positions? A review of the literature [1-3] on women scientists' productivity and career attainment shows that women in male-dominated scientific fields (e.g. Materials Science and Engineering, Physics etc.) often experience many informal and subtle obstacles to career advancement. The most frequently cited obstacles that women scientists commonly confront throughout their careers are [1-3]:

a) the 'outsider' status, operative in a predominantly male milieus where women scientists represent a significant minority
b) exclusion from professional networks, which limits the possibility not simply to participate in a social circle, but rather to collaboratively do research, to publish, to be cited, to show the very marks of productivity in science
c) limited collaborative opportunities: women's research productivity suffers to the extent that access to professional networks is more difficult for women; scientists who research and write collaboratively have a higher rate of publication than single authors and are more likely to be cited by others.
d) social roles: marriage and parenthood affect women and men differently, being often assumed that these factors limit women scientists' productivity at a higher rate

e) professional and scientific style is seen as benefiting men in terms of gaining higher visibility and developing professional networks; women are less self-confident and less self-promoting in their pursuit of career success.

Understanding the informal obstacles that women in science face can assist both staff and managers to better understand that 'the playing field' is not level and the constraints the women sometimes experience are not simply individual problems, but are likely related to systemic issues within the culture of research organizations and the community of science.

[1] *Beyond Bias and Barriers: Fulfilling the Potential of Women in Academic Science and Engineering;* COSEPUP, The National Academic Press, Washington, D.C. (2007)

[2] G. Sonnert, *Gender Differences in Science Careers: The Project Access Study*. New Brunswick, NJ: Rutgers University Press, (1995)

[3] B. Sheridan, *Strangers in a strange land: a literature review of women in science*, Simmons Institute for Leadership and Change, Boston, MA, CGIAR Gender Program, (1998)

[4] M. F. Fox, *Gender, environmental milieu, and productivity in science*, In H. Zuckerman, J. R. Cole, & J. T. Bruer (Eds.), *The Outer Circle: Women in the Scientific Community*, NY, W. W. Norton and Company, (1991)

[5] http://www.diversity-fp7.eu/

GENDER DIVERSITY FROM THE SLOVAK AND GREEK PERSPECTIVE

D. Caganova, O. Moravcik, J. Stefankova and J. Veresova
Institute of Industrial Engineering Management and Quality, Division of Academic Activities
Faculty of Materials Science and Technology STU, 917 24 Trnava, Slovakia
M. Gialabouki and Ch.E. Lekka
Materials Science & Engineering, University of Ioannina, Ioannina 45110 Greece

In both Slovak Republic and Greece the gender equality principle was implemented in the Constitution around Nineties and Eighties, respectively, followed by the scientific institutional or university level mechanisms. Although the situation of women scientists between the two countries is pretty similar some differences may emerge. In the case of Slovakia, which past a period of socialism, women have better representation in science taking into account the gender equality in assistant professor level and the increasing rate of women university teachers in 2006. In the case of Greece, which always had democracy, the women's position seems to be worse. Nevertheless, both countries agree that Bsc females are more than males, while critical is the period of the graduate studies where this number is reversed starting from the PhD candidates. The situation becomes

worse at the higher academic positions, while the scientific education and academic career of male and female follows a scissors-like diagram. It has to be noted that since the male dominate the high academic level they will therefore occupy all the university decision-making positions. This situation is quite similar to other European countries like Slovakia and Greece; the main reason is that usually women decide to give their effort to their family and most of them are not competitive and prefer to leave men being in front in the scene.

MATERIALS SCIENCE INSTITUTIONS IN ITALY: THE ROLE OF WOMEN

P.Rizzi[#], G.Dalla Fontana

Dip. Chimica IFM and NIS, Università di Torino, Italy

In this work, the evolution of the male/female distribution in different roles in Italian Universities from 2000 to 2010 is analyzed. Differences or similarities between chemistry and humanities research fields are highlight. These data are compared with those obtained for the University of Torino and Politecnico of Torino, that represent one of the major academic poles in the north of Italy. The goal is to evidence the difficulties in reaching the high levels of the academic career for both female and male and to highlight the general contraction of the number of researchers at any level in the last five years, due to a reduction of the public investments in instruction and research.
Finally, the influence of Italian culture, politician/politics and TV on the gender roles will be discussed.
[#]Corresponding author: paola.rizzi@unito.it

ATTRACTING GIRLS TO SCIENTIFIC & TECHNOLOGICAL BACHELORS

M.M. Hernando

Campus Gijón, Universidad Oviedo, Spain

Project GENIUNIOVI reveals a typical scissors model regarding the gender distribution in the University of Oviedo. In case of technical studies the problem begins in the primary school were it can be seen that young women choose a different type of studies. Gijon Polytechnic School of Engineering celebrates the “Girls Day”, an initiative to visualize a non-stereotyped model of the engineering degree. More than 200 students assisted at the first edition of the Girls Day. On its second edition, the Girls Day has been inserted into the “EPI week”, a week with several promoting actions to improve the presence of our school in the society.