



Project no. 031255

Project acronym: ELSA

Project title: Excellence in the Life Science Area

Instrument: Specific Support Action

Thematic Priority: Science and Society – 17 Women in Science

Final Activity Report

Period covered: from 1 April 2006 to 31 January 2007 Date of preparation: 15 March 2007

Start date of project: 1 April 2006

Duration: 10 months

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Project coordinator organisation name: Karolinska Institutet

In order to address the issue of gender and excellence a conference ELSA – Excellence in the Life Science Area was organised at Karolinska Institutet, Stockholm, Sweden 5-6 October 2006. The work was organised by a Organising committee that worked in close contact with the Programme Committee. Please find a summary of the discussions and conclusions below and see separate document for the scientific report. The scientific report will be published and distributed to the participants and other stakeholders within short.

Executive Summary

We believe that finding better systems for promoting equal opportunities in science would greatly strengthen scientific performance around the world. Hoping to assist in this development, we organized a conference focusing on the achievements made and the challenges remaining, particularly in the Life Science Area. The conference, Excellence in the Life Science Area – held in Stockholm in October 2006 – made it possible for researchers and decision-makers to share good practice and experiences in assessing scientific excellence. Here, we highlight key aspects of gender and excellence identified in Stockholm.

The speakers addressed the aspects of excellence and gender in a wide range of themes, for example, during financing research, recruitment of researchers and evaluation of research. The recurring factors requested in order to ensure excellence in all evaluation procedures were transparency and clearly defined evaluation criteria. Drs Berry and Hosek demonstrated the difficulties of evaluating gender aspects in research financing when information on underlying factors are missing. In their study, *Gender Differences in Major Federal External Grant Programs*, they found large gender differences in grants awarded by the USA's National Institute of Health. However, the results were difficult to interpret, as lack of data hindered adjustment for factors such as amount of grants applied for. In the light of their findings, they provided valuable recommendations for financing agencies.

Representatives of public and private granting bodies shared their practices in how to ensure transparency and accountability in order to finance excellent research. Dr Ingrid Wüning, of the Robert Bosch-Stiftung, represented a private grantor with vast experience of addressing gender issues. Female applicants are encouraged to apply for funding, and the foundation has established a Fast Track Career Programme, aimed at young female researchers. The Academy of Finland and the Swedish Research Council presented their Equality Plan and Gender Equality plan, respectively. Their plans include the ambitions to achieve equality in peer review processes, with equal numbers of male and female evaluators, as well as gender balance in power and decision-making. The Swedish Research Council shared the experience reported by NIH; larger gender differences exist in the awarding of larger grants. The underlying reasons for this are not clear and need further address.

Peer review is an essential part of assessing research, in recruiting scientists and financing research projects. Peers, acting as gatekeepers to resources and positions, exercise power within the scientific community. Dr Neil Viner elegantly demonstrated how the gatekeepers are commonly to be found within the group of the most active and successful researchers. Further success consolidates a scientist's position as a gatekeeper and vice versa. It is therefore essential that we ensure gender balance at all levels of the scientific community in order to avoid an unintentionally negative bias affecting the selection of women for decision-making positions. Professor van Raan presented a detailed survey on the pros and cons of bibliometric analysis of research quality, an instrument commonly used together with peer review processes. These analyses must be performed with some care, as factors such as chosen scientific areas might skew the results.

The financing agencies represented all perceived a key challenge in the slow progress of women reaching senior scientist positions. This particular issue has been addressed at Karolinska Institutet, and the recent initiative from the Strategy Group for Equal Opportunities, appointed by President Harriet Wallberg-

Henriksson, was presented. To ensure a strong recruitment base for the appointment of professorships at the faculty, senior lectureships have been announced in areas identified as having a large supply of experienced and qualified female scientists. This initiative will pave the way for achieving the set goal of 30% female scientists among professors recruited for the years 2005-2008.

The dilemmas of decision-making at universities were addressed by Dr Göran Bexell, Vice-Chancellor at one of Sweden's largest universities, the University of Lund. He reminded us all that even if a university's management can provide an infrastructure for excellence, excellent research is performed by talented individuals. Recruitment to faculty positions thus plays a key role in achieving and maintaining excellence at universities and research institutes. In order to ensure fair selection and recruitment, the European Commission has established a number of principles for attractive and sustainable research careers, summarized in the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers. However, in order for the Charter and Code to achieve their purpose, European universities and granting bodies must implement these principles in their activities. As Secretary-General of the League of European Research Universities, Dr David Livesey discussed important issues in recruiting for excellence. He stressed the importance of considering teaching as a valid criterion when recruiting for faculty positions.

Defining evaluation criteria for achieving and maintaining excellence in research was a key theme of the conference. Representatives from the top international Nature and Science magazine shared their strategies for successful identification and publication of high-quality and excellent research. With a rejection rate of 90%, rigid structures must be established to prevent the wrong editorial decisions from being made. Both journals had also made considerable efforts to ensure gender balance in their editorial offices. The Open Peer Review trial performed by Nature highlighted the dilemma of accountability. The trial invited the scientific community to comment on manuscript published for review. However, the results were rather discouraging, in that they demonstrated a reluctance by referees to make named comments.

What constitutes excellence in science was addressed by several speakers. Dr Jonathan Grant presented a range of criteria that can be used when assessing the outcome of clinical research, and Dr Ben Martin discussed challenges when evaluating knowledge transfer and exploitation outside universities. To avoid focusing on volume rather than excellence, case studies might be more appropriate instruments in these cases.

Both Dr Anders Flodström, President of the Royal School of Technology, Sweden, and Dr Linda Buck stressed the importance of favourable conditions to curiosity-driven research. Key characteristics of excellent research were defined by Dr Buck, who also discussed what it takes to achieve excellence. Her recommendations included allowing time for excellent research to develop.

The conference ensured us that we have in our hands several factors allowing for excellent research to be performed in Europe. We have devoted individuals with brilliant ideas and exceptional research environments. In addition, we were encouraged by the dedicated work performed at European research institutes and funding bodies in order to ensure gender balance and excellence in the Life Science Area. However, the slow progress of women into top positions in the scientific community as a whole, within faculty, as well as in decision-making, is worrying. We hope that the recommendations given and experiences shared by the speakers can be taken into consideration around Europe, and will add to the development of a thriving European Research Area accessible to all.