

Affirmative action for women

Women in science: Mentoring as a door opener to a career

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Pallas Athene, known to the Romans as Minerva, was worshipped as the goddess of wisdom and protector of the sciences. But Homer also told how the goddess – disguised as a wise man named Mentor – advised and protected Telemachos during the long absence of his father, Odysseus, who was her favorite.

So is mentoring old hat? Yes and no. Also known as “the old boys' network”, it is mostly an informally established ritual that has been giving people a wonderful helping hand up the career ladder for centuries. And in the scientific domain, mentoring and networks serve the same purpose. However, traditional role expectations and predominantly male role models still serve to ensure that women benefit much less often from this kind of support throughout their career than their male counterparts. Studies have shown that young female scientists are not given the same kind of support and advice as their male colleagues, and are also less well integrated into networks, even if they do have the same access to scientific institutions these days.

Sadly, to this day, there is still a glass ceiling making it harder for women to reach the truly prestigious positions. The air still becomes rarified when women attempt to rise to management positions. A mere 6.0% of the top positions at the Max Planck Society (MPS) are currently occupied by female Directors. Just under 23% of posts as the head of an Independent Junior Research Group (W2) at the MPS are currently held by women scientists (MPS statistics 2007).

The top positions in major corporations are also firmly in the hands of men. A mere 7.8% of Supervisory Board members in Germany's 200 biggest companies are women. When it comes to female representation in the more broadly defined management positions, the European Commission places Germany at the lower end of the scale, with women holding around one quarter of the posts (DIW Berlin weekly report, no. 7/2007).

As part of the equal opportunities offensive, Germany's largest scientific organizations (German Research Foundation, Fraunhofer Gesellschaft, Helmholtz Association of National Research Centers, University Rectors' Conference, Leibniz Association, Max Planck Society, Scientific Council) agreed at the end of 2006 to increase the share of women in top scientific positions in the coming years. At the MPS, actions include the W2/W3 special program for the advancement of outstanding female scientists and scientists in top positions, an integrative approach to provide staff with a better work-life balance; mentoring is also a key component to helping women on the way to management positions (www.hrk.de/de/beschluesse/109.php).

The MPS's mentoring program, known as Minerva-FemmeNet, was initiated in 2000 at the Max Planck Institute for Biophysics in Frankfurt am Main by Barbara Legrum, who was then Officer for Women's Affairs. The pilot project began by 'recruiting' former institute graduates as mentors. The intense commitment of the MPS's Central Equal Opportunities Officer, Dr. Marlis Mirbach, enabled word of the burgeoning network to spread. The Officers for Women's Affairs at other Max Planck institutes were thus also able to contribute to the project in important ways. Today, 27 institutes and over 200 members are involved in the network, which now receives part of its funding from MPS management. In 2004, the support of the Directors at the MPI for Biophysics was instrumental in bringing about a cooperation agreement with the state of Hesse's female mentoring network, which has massively expanded the range of courses and the number of mentors available to Minerva-FemmeNet. Mentoring at Minerva-FemmeNet begins with a process of selecting the most suitable mentor for the individual needs of each mentee, and subsequently establishing a tandem partnership. Within a previously determined timeframe, the two work toward achieving the mutually defined objectives. A second mentor can be brought in if required (for instance if the research focus or objective changes).

What can mentoring do for female scientists?

Decisions that affect a scientist's future need to be made even before they begin their doctoral work. As one mentee put it, "I hope the Minerva-FemmeNet program will give me ideas and answers to help me out of the following dilemma: Is my professional future in academia or in industry, and does it lie in Germany or overseas?" What direction should a young scientist head in? Generally speaking, the mentors are called upon to analyze the strengths and weaknesses of their mentees, and sometimes to uncover carefully hidden possibilities as well. If the direction points toward industry, female mentors in industry are needed. The young scientists can learn from them the rules by which they will need to play in industry, and the requirements that are helpful in applying for jobs. Or the secret desire may be to take the academic path. Many young women lack the necessary self-confidence, thus finding it difficult to believe they could win the scientific marathon that is the quest for a professorship, or even place among the top competitors. Here, mentoring and targeted support can do a great deal to help young women decide in favor of an academic career. In most cases, mentors and their networks can also be of assistance in looking for a job. Minerva-FemmeNet is not an employment exchange. However, what it can do is help put people on the road to finding their own personal calling.

Among women scientists at the MPS, female role models are particularly in demand. There is a great deal of interest in hearing about the career paths of women who have managed – not least through their own networks – to establish themselves above the fabled glass ceiling. It is encouraging to see how they overcame obstacles. Sharing the experience of others also helps to spot the pitfalls that make the careers of women so specifically problematic*. These role models are relevant to all age groups of female scientists. They can be discussed on an individual basis in 1:1 tandems or in groups, such as the various groups of 'Minerva regulars'. Naturally, other actions are needed besides these injections of motivation to reinforce the crucial competencies in

the stiff competition for the best positions. Through the MPI for Immune Biology in Freiburg, the MPS has successfully entered into a cooperative agreement with Germany's oldest university mentoring program in the form of the Minerva-FemmeNet and MuT (Mentoring & Training) cooperation. MuT is funded by the Baden-Württemberg Ministry of Science and targets primarily women aiming for a postdoctoral qualification, as well as young female scientists on the path to securing a professorship. According to MuT project manager Dr. Dagmar Höppel, this phase is the equivalent of a tightrope walk between unemployment and excellence.

The goal of the cooperation between MuT and Minerva-FemmeNet is to give as many of the MPS's women scientists as possible the chance to take part in the training program and so prepare themselves for specific management roles, be that in the administrative or the organizational sphere. Events like the training session on the appointment procedure for professors give potential candidates the opportunity to find out what the procedure involves and what their application should contain. Their questions are answered by experienced professors, male and female. The session entitled "A career in science – a free choice for children and science" presents an opportunity to exchange thoughts and tips on mastering a situation that is fraught with conflicts relating to the question of whether a woman can have children and also have a career in the sciences. Women are also offered targeted seminars to help them put their expertise into practice and successfully exploit the opportunities they have. In exchange, male and female professors from MPS act as mentors for MuT. The joint Minerva-FemmeNet and MuT activities are coordinated by Prof. Ingrid Haas of the MPI for Immune Biology in Freiburg.

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* See Robert Bosch study, January 2006, conducted by the Center of Excellence Women in Science (CEWS), Bonn, part II: research into the causes of marginalization of women in science.

Photo captions

Dr. Mattig from the state of Hesse's Ministry of Science giving the welcome speech at the inauguration of the Minerva and MuT cooperation on March 2, 2007 at the MPI for Immune Biology in Freiburg

Left: Barbara Legrum, right: Ingrid Haas