

Is women scientists' approach to science more interdisciplinary?

Sir,

Janez Potocnik, EU Commissioner for Science and Research, critically points out that women remain a minority among researchers in the EU [1]. Explanations of the different careers paths of men and women in science have so far focussed mainly on social reasons and on the structure of the universities [2]. Recently, interest has turned to the disparities in female and male approach to science. In a symposium at Columbia University in November 2006, Maya Tolstoy, a research scientist with high reputation at the Lamont-Doherty Earth Observatory stated that the general approach of women and men to science was not different, but that women were much more likely to be engaged in interdisciplinary research [3]. In medical science no research on this topic has been reported so far.

As a start, we retrospectively evaluated all original contributions to *Wiener Klinische Wochenschrift (The Middle European Journal of Medicine)* from October 2005 to March 2007 with respect to interdisciplinary research (IR) vs. monodisciplinary research (MR) and to male vs. female scientists as authors. Original publications were considered to be IR, if the authors came from different medical specialities. Results: 86 original publications were published in the evaluation period, in one study the gender of the authors could not be identified by the names. 67 of these publications fulfilled our criterion of IR. There was a total of 414 scientists in IR and 91 in MR. The proportion of women scientists in IR was significantly higher than in MR (compare two proportions-test: 0.35 vs. 0.21; diff 0.14, 95% CI for the diff 0.034 to 0.246, $p < 0.05$). The proportion of women scientists as first authors in IR was likewise significantly higher than in MR (0.47 vs. 0.11; diff 0.36, 95% CI for the diff 0.106 to 0.614, $p < 0.05$).

Our small sample supports Tolstoy's theory that women scientists are more likely to be engaged in interdisciplinary teams also in medical science. Many explanations for this phenomenon are possible. Maybe interdisciplinary groups more often choose women scientists as first authors, maybe female project leaders engage more often in interdisciplinary questions. Tolstoy herself argues that women scientists may be better at interdisciplinary collaborations because they less commonly need to be alpha scientists. The external validity of our results is not clear, as they could be biased by the investigated journal.

Integrated research is generally considered to be the research of the future; our findings indicate that in *Wiener Klinische Wochenschrift* women scientists are more successful in this field.

Karen Kastenhofer and Georg Röggl

References

1. European Commission (2006) Women and Science. Statistics and Indicators. She Figures 2006. http://ec.europa.eu/research/science-society/pdf/she_figures_2006_en.pdf
2. Holmes MA, O'Connell S (2007) Leaks in the pipeline. Why do women remain curiously absent from the ranks of academia? *Nature* 446: 346
3. Maya Tolstoy (2006) Symposium: a new kind of science: The Science of Diversity. *The Record (Columbia University)* 32: 5

Correspondence: Prim. Univ.-Doz. Dr. Georg Röggl, Abteilung für Innere Medizin, AKH Neunkirchen, Peischingerstraße 19, 2620 Neunkirchen, Austria,
E-mail: roeggla.interne@khneunkirchen.at or georg.roeggla@meduniwien.ac.at