On Supporting Female Postdoctoral Fellows with Children

It is perfectly natural and normal for postdocs to have children, but it has not always seemed so. As a graduate student and postdoctoral fellow in the mid-1960s, I had several female colleagues, but with the notable exception of Merrill (and Bertil) Hille, none had children. Somehow I felt that this was in the natural order of things and represented the sacrifice a woman had to make to have a successful career in science. Indeed, during the first 13 years I was on the Massachusetts Institute of Technology faculty, I had many female students and postdocs in the lab, but none had children, and I never thought to discuss this—or any other family matter—with them. This despite the fact that my wife and I were raising three wonderful children, and I was aware of the great satisfaction I was getting helping them grow and develop into successful young adults.

This all changed in 1981 when Alice Dautry joined my lab as a postdoc. Her husband was a postdoc with Robert Weinberg, and she was at Harvard Medical School when I interviewed her. It took only a few minutes for me to recognize her talents, and I gladly accepted her into my group. Partly in collaboration with Aaron Ciechanover, Alice carried out a brilliant series of studies elucidating the pathway of iron delivery from transferrin into cells involving endocytic recycling of apotransferrin and the transferrin receptor.

In late 1982 Alice announced that she was pregnant. At that time there were no protocols for PIs to follow in pregnancy matters, and none of my faculty colleagues could offer much advice. For example, Alice recently wrote me that she “was wearing a lead apron, very heavy, while I was pregnant, to work with $^{125}$I-transferrin.” (Such work would probably be forbidden today.) She also wrote, “I remember, being one of the first women scientists pregnant at MIT, walking around campus, and people were asking me in a very pleasant way how I was feeling, and so on. It was really nice and warm.” And “I also remember presenting a large seminar at MIT, where everybody was there, to present the results on the transferrin receptor cycle. I was quite pregnant and again, I had nice comments, both scientific and personal.”

Her son Raphael was born in May 1983. Not knowing what else to do, I suggested that she use her maternity leave to write two review articles, one of which was published in Scientific American and the other in a more conventional review journal. I remember going to her flat and working on drafts of the articles with her while she was nursing; somehow this seemed like the natural thing to do. Alice’s account: “I wrote two review papers during [Raphael’s] first two months, and I am still very grateful for your support at that time. I really wrote them while having [him] in my arms part of the time, working on my first personal computer I had purchased specially for that.”

My point is not that I was a sensitive male PI in touch with his emotions and wanting to do the politically correct thing. I wanted these papers published expeditiously, and if sitting with a nursing mother was what had to be done, then so be it. It was then that I suddenly realized that having a postdoc with a small child was natural, and it occurred to me that there was no reason why such individuals would be less productive than those without children.

Alice was the first of many women who had children before or while they were in my lab, and all were exceptionally productive and successful both while at Whitehead/MIT and afterward. The list is long (Svetlana Bergelson, Giulia Baldini, Miyoung Chun, Ana Maria Garcia, Ursula Klingmüller, Petra Knaus, Carol Mulford, Drorit Neumann, Jean Schaffer, Merav Socolovsky, Wei Tong, Stephanie Watowich, Rebecca Wells, LilianWikström, Hong Wu, ...
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Perhaps more important is what happened after they left my lab. In 2005 Alice was appointed president of the Pasteur Institute in Paris. Four women from my lab have had successful careers in pharmaceutical companies and one in publishing. The others accepted tenure-track faculty positions at top universities. All were promoted and tenured at the appropriate time.

When interviewing potential postdocs, I never ask anything about family matters or children—such questions are illegal in any case. I do volunteer information about nearby child-care facilities and the fact that many of my postdocs have children. Often I now show them pictures of my own seven grandchildren or of our annual lab swimming party where 20 or so small children, with parents, fill the pool. These “offhand” comments make the point that I welcome postdocs with children. I also make sure that interviewees meet both male and female postdocs who have small children. I have found this approach extremely useful in recruiting outstanding postdocs of both sexes. Again, I do this out of self-interest for my laboratory and my research—my objective is to attract the best postdocs I can, and being sympathetic to children is, I have found, one way to accomplish this goal.

Child care is the big issue, and my hope is that institutions will realize that not having affordable child care onsite will cause them to lose outstanding students and postdocs to institutions that do. A recent survey of Whitehead postdocs emphasized the importance of this issue. Of the 87 (of 130 invited) who responded, 67% are married. All but three of the 58 married postdocs have (33) or expect to have (22) children. Of the female postdocs specifically, 76% are married, and of these most either have (60%) or expect to have (36%) children. The recently opened Stata Center at MIT has a child-care facility, but the waiting list includes several hundred children. The financial cost of child care for postdoc families is huge and takes up a sizable amount of their take-home pay—about 25% on average, as indicated by the survey.

Thus, as a community, postdocs (and graduate students) need subsidies for child care, as well as more child-care centers that are close by. Clearly, Whitehead/MIT must and will do more in the child-care area if it is to continue to attract the best and the brightest students, postdocs, and faculty of both sexes. Institutional support of child care is not only the right thing to do; it is important in attracting and retaining the best students and staff in an increasingly competitive environment. The sooner each biomedical institution figures this out, the better the situation will become.

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Footnotes
1Advances in Protein Chemistry; Annual Review of Cell Biology; Biochemical Journal; Blood, 7; Cell, 4; EMBO Journal, 2; Experimental Hematology; Journal of Biological Chemistry, 13; Journal of Cell Biology; Journal of Experimental Medicine; Molecular and Cellular Biology, 2; Nature; Proceedings of the National Academy of Sciences of the United States of America, 10.

2Boston University Medical School, Columbia Medical School, University of Texas M.D. Anderson Cancer Center, Tel Aviv University, the Max Planck Society, UCLA Medical School, University of Würzburg, Yale Medical School, University of Massachusetts Medical School, University of Wisconsin Medical School, University of Pennsylvania Medical School, and Washington University Medical School.