## **WOMEN in Cell Biology**



## **Postponement of Parenthood: Implications for Women Scientists**

In 2004 I authored a WICB column, "On Being a Scientist and Parent,"<sup>1</sup> wherein I wrote the following:

When to have kids? Obviously it's easier when you see a coherent career path before you, and don't feel you need to rush it—you can be a great first-time parent in your late 30s/early 40s. But having babies earlier can work out fine also; it's just more dicey to pull off.

What this observation ignored, naively, was the reality of diminishing fertility as we age. This reality is detailed in last month's WICB column by Kelle Moley, called "Postponing Parenthood: The Good, the Bad, and the Ugly".<sup>2</sup> Women in their late 30s and early 40s may have the qualities to be great firsttime parents, but they may discover that they don't have the wherewithal to conceive, given that egg reserves decline dramatically in many women after age 35.

While I was aware that conception was more difficult with age, my flawed premise was that should conception prove difficult, there was always the option of in vitro fertilization (IVF), albeit at considerable cost. In fact, IVF proves to be just as compromised by egg-reserve depletion as is natural conception. Moreover, as detailed in Moley's article, there are currently no tests available that predict the future status of a woman's egg reserves; the existing tests only confirm that radical depletion has already occurred. As one academic gynecologist remarked: "I've noticed that several months after rotating through our fertility clinic, many of our female residents show up pregnant."

There are, of course, other options—the use of donor eggs, or adoption, or acceptance of a child-free lifestyle (which some women elect from the outset). But given that most women who intend to have children prefer that they be genetically related, the fertility statistics obviously collide head-on with current career profiles in the sciences. Challenges arise in all scientific career trajectories; the focus here will be on academia since that's what I'm most familiar with.

Recent studies<sup>3-5</sup> indicate that a key factor in the loss of women Ph.D. scientists to academic careers is their perception that such careers are just too demanding to tackle if they also want to have a family. There are good reasons to hold this perception from the fertility perspective. The median age for receipt of Ph.D. in the biomedical sciences is 31, and the median length of postdoctoral training is four years,<sup>6</sup> meaning that the median age of women who succeed in obtaining an academic position is 35, already at the fertility tipping point. The biggest hurdle then lies ahead, with a five- to seven-year window to meet what many perceive to be an increasingly high bar of research-productivity, teaching-excellence, and departmental-service expectations.<sup>7</sup> Were it the case, as I had blithely assumed, that one could with impunity land tenured on the other side of this marathon and then start a family, all would be fine. But too many women who have made this gamble have wound up childless. It's a risky game plan.

So from the fertility perspective, the viable game plan is that women scientists who wish to have children start their families as graduate students or postdocs or early faculty members. It probably goes without saying that academia is at present quite ill-prepared here. To be sure, most institutions have by now implemented at least minimalist maternity-leave and clockstopping formulae for their faculty, but graduate students and postdocs are for the most part operating in poorly defined territory. Some thesis advisors/PIs are encouraging and flexible, but many others, with their eyes focused on the next grant-renewal deadline, are decidedly less so, and all of us sense that we are working without either a map or a net. When a woman in one's lab has babies, it is all too often regarded as a problem to be solved, or a difficulty to contend with, or a challenge to face, rather than the normal course of events.

Hugely compounding "the problem" is the current situation with childcare. While some institutions have made commendable strides in providing affordable-quality childcare facilities, a recent survey carried out by the WICB

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- Wait lists: times range from three months to two years, with the mean at least a year (comments: "If you don't get your child in as an infant, chances are slim that you'll ever get in;" "The postdocs in my husband's lab say that the moment you know you're pregnant you start putting yourself on waitlists;" "I signed the list two years ago and they still haven't contacted me").
- Cost per month
  - Range for infants=\$650-\$1,500; mean=\$1,000
  - □ Range for toddlers =\$675-\$1,800; mean=\$1,100 Translation: a postdoc with a \$36,000/year salary and two children needs to spend 2/3 of her salary on child care—if, that is, she can find places that have openings.

The obvious "solution" here is a radical revision in the relationship between the academy and family. As is often noted, the academic career trajectory was set up in an era when most of the academics were males with wives at home. Since the 1970s, programs and plans have been layered over the existing system to create a patchwork of exceptions to the rules, and women attempt to navigate these waters as best they can or, far too often, decide not to bother. When universities recognize that pregnant young women and young parents are the expectation and not the exception, and organize their expectations accordingly, we may start to get somewhere in the equal-opportunity department.

*—Ursula Goodenough for the Women in Cell Biology Committee* 

#### References

<sup>1</sup>www.ascb.org/files/0411wicb.pdf.

<sup>2</sup>www.ascb.org/files/0711newsletter.pdf.

<sup>3</sup>www.nap.edu/catalog.php?record\_id=11741.

<sup>4</sup>Martinez E, et al. (2007). Falling off the academic bandwagon: women are more likely to quit at the postdoc to principal investigator transition. *EMBO Reports* 8; 977–981.

<sup>5</sup>Ledin A, et al. (2007). A persistent problem: traditional gender roles hold back female scientists. *EMBO Reports* 8; 982–987.

<sup>6</sup>www.nap.edu/openbook.php?record\_id=9827&page=19.

<sup>7</sup>www.sciencemag.org/cgi/content/full/294/5550/2293?ijkey=XSPM3bY01 vxeY&keytype=ref&siteid=sci).

<sup>8</sup>www.ascb.org/files/0604wicb.pdf.

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