sources. It is also to the credit of the authors that they have inserted sections on the isolation and amplification of minute amounts of RNA, as such approaches are essential to the success of experiments aimed at analyzing manually and micro-(laser-) dissected biopsies, or even single cells.

An entire section (part 2) in chapter 3 deals with perhaps the most critical steps in DNA-microarray experiments (the labeling of targets, hybridization, and posthybridization), and one will find all that is required to achieve the best outcomes. A trouble-shooting section is particularly well illustrated, with two dozen scanned images, which provides an immediate visual aid to diagnostics.

One part of the DNA-microarray experiment is done in the wet lab. The next parts, scanning and data acquisition, are instrument-based processes. The last part is the analysis, interpretation, and comparison of unusually large data sets. All three phases involve complex biophysical and statistical principles, which are explained in sufficient details to allow one to get properly (and progressively) educated in often-arcane subjects. Accordingly, a very good and not-too-overwhelming chapter 7 introduces the reader to microarray bioinformatics. In this chapter, the questions of experimental design, image capture, normalization and filtering, data management, and analysis are abundantly covered, critically assessed, and, again, well illustrated. The authors elected to present only some of the approaches available to extract meaningful information from large data sets. Clustering analyses and commonly used softwares, multidimensional scaling, and self-organized maps are all described in detail, whereas the so-called supervised methods of analysis, more complex and still evolving, were left for a future edition.

DNA Microarrays is a compendium. It deconstructs each step of the microarray analytical process and offers a vast repertoire of techniques that represents a collective expertise. For all these reasons, the clarity of its style, and the elegance of its presentation, it is highly recommended. It is destined to be in the hands equally of the novice and of the already-experienced investigator.

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Babyface: A Story of Heart and Bones. By Jeanne McDermott. Bethesda: Woodbine House, 2000. 261 Pp. $22.95.

Rereading chapter 1 of *Babyface,* I am moved by how far this family has come during 8 years of Nate's lifetime and by their view of how far we still have to go toward creating a more comfortable world for those with "visible imperfections." The author, Jeanne McDermott, was a science journalist, married to Ted, with a son in nursery school, when she gave birth to their second son, Nathaniel, in 1990. Nathaniel was 1 of 14–60 babies born that year in the United States with Apert syndrome: a visibly unusual child with fused fingers and toes; a "towering skull"; bulging brow; and eye, ear, mouth, and respiratory problems because of premature fusion of the skull bones. The book, which is based on McDermott's journal, recounts in detail the events of Nathaniel's first year of life. These include harrowing times in the intensive-care unit; multiple surgeries; second, third, and fourth opinions from specialists of many varieties about how to manage this rare craniofacial condition; periods of parents' agonizing uncertainty about Nathaniel's mental development; and times when even his survival was in question. The narrative, at times gripping, is filled with vivid anecdotes that capture the ups and downs of daily life for the family during this exhausting year.

Every anecdote, as now written, illustrates an ethical stance: that disability or "deformity" does not define an individual's worth. One wonders whether each event had that clear import at the time. Yet, the vignettes are anything but simplistic; they are as complex as daily life. Although Nathaniel "had no clue that he was physically different, and, for years to come, he would not," his mother started worrying on the way home from the hospital, 4 days after his birth, about how others would treat him. "The fact that Nathaniel was born with observable imperfections meant that we lost the social anonymity that members of the able-bodied, physically 'normal' majority take for granted. People paused, stared, and noticed." On the first day, Jeanne "grieved for the dreambaby who had died and loved the one who had been born." From then on, she focused first on his survival, made possible by tertiary-care medicine, and then most fiercely on seeing that his world gave him the affirmation he would need to develop as a full human being. Still, she lets us glimpse the mind games that even committed parents play to banish the guilt of having given birth to a child with a serious congenital condition: "Pretend he's adopted," she said to her husband. "That way, I don't feel like we failed every time I look at him."

"Studies show that in the first five seconds of meeting a person, we make a decision about his character and moral nature based on how we see his face." In the light of this socio-biological fact, McDermott asks herself,"Could I really see beauty in every face?…Could I get past the barriers of my own fears and prejudices? Was beauty entirely a matter of the heart, wholly independent of flesh and bones?" Could I "look with such transcendent love that it changed the way others saw…?" She and her husband focus their parenting on allowing their son's identity to become manifest, not as different or "disabled," but as human. Each chapter is preceded by a small "box" in Nathaniel's own printing, describing daily happenings of ordinary life: a powerful, concrete way of assuring the reader of Nathaniel's individuality and ability now, years later, to participate in the typical life of a child and to express himself.

There is much here of universal interest to families whose children have special needs or congenital conditions, to anyone advocating for them, and to professionals who care for these

families. Included in the account of Nathaniel's early years are the sometimes supportive, sometimes debilitating, sometimes subtle, sometimes blatant reactions of family, neighbors, health professionals, and strangers. In the process of coping with Apert syndrome, family dynamics shift, including the parents' maturation as a couple and the reconnection of long-estranged relatives. McDermott gives nuanced descriptions from the experience of parents who have more thoroughly researched the ins and outs of various treatments than could some consultants, yet are dependent on fate and the skills of medical professionals to bring their child through major surgery and its aftermath. She recounts the emotions of meeting other families whose children also have this rare syndrome and the powerful experience of solidarity with others who have visible or invisible disabilities. The letter that Nate writes to his third-grade classmates sums up the situation that he faces as a special child and inspires the reader's admiration for him and his family:

> "I don't really like to talk about Apert syndrome because it's not a big deal. If you have questions you can ask me once a week but not twice a week. It's more fun to talk about something else like what to play on the playground or what we do for homework. Apert syndrome is not the most important part of me. I know a lot of other people who have it. It's okay to stare for a short time in a friendly way. Sometimes kids have a hard time understanding me when I speak. Just ask me again and I'll say it slowly. Once I got teased at the playground when my brother was playing soccer. A boy called my head stupid. Kids should not say mean things about each other's bodies. I like to climb trees and eat popsicles."

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