



Ahead of the Curve: David Baltimore's Life in Science

by Shane Crotty

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In *Ahead of the Curve: David Baltimore's Life in Science*, his highly entertaining biography of David Baltimore, Shane Crotty delivers a vivid description of the career of one of the most influential scientists of our time, while providing a lively account of discoveries that shaped biology over the last forty years and of events that contributed to define its place in today's society. The very nature of Crotty's subject made the task both easy and challenging. Arrogantly successful in his research, a charismatic mentor and institution builder resolutely engaged in public matters, a relentless intellectual leader in and out of his field, and at some point the key hostage of an affair that would leave none of its protagonists unharmed, Baltimore is a towering figure who leaves only the rare few indifferent.

Crotty first amuses us with some high school anecdotes: the two-man tuba section of the marching band formed by the young David and a future major movie director (did it sound like apocalypse then?), or the biology summer camp mentorship by a future Nobel co-laureate (not just serendipity: admittedly a determinant encounter). Even though most personal aspects of Baltimore's life are just touched in passing, through a college friend's recollection we hear of his personality-defining aspirations: to go for very, very important stuff, and to be a decent human being.

What follows is Crotty's inspirational description of Baltimore's fast track to Nobel glory, which takes us in very accessible terms from the identification of the first RNA-dependent RNA polymerase in

mengovirus through the finding that the negative-strand RNA virus VSV packages its own replicase—a crucial step towards postulating that retroviral particles must contain an RNA-dependent DNA polymerase. It culminates in the discovery of this enzyme, the instantaneously famous reverse transcriptase. An exhilarating dose of pure scientific excitement comes as Crotty relates the finish of a race that wonderfully ends up in a Temin–Baltimore tie, amidst a setting of anti-Vietnam war protest. One can almost hear the Doors playing in the background. . . for the youngsters, a reassuring reminder that paradigm-shifting biological discoveries can occur outside of the new-wave 'omics emporiums'.

Quite rightly, an important place is given in the book to the discussions that surrounded the emergence of recombinant DNA technology, which came on the recommendation by Baltimore, Paul Berg and a few others to temporarily suspend cDNA work until matters were thoroughly discussed at the 1975 Asilomar meeting. Crotty stresses the long-term implications of these events through which molecular biologists, aware of the formidable potential of the tools they had invented, demonstrated an exemplary degree of social responsibility. This was a remarkable attitude, and

may partly explain Baltimore's later position when confronted with politicians' desire to investigate matters that he himself considered to be purely scientific in nature. Unfortunately, this second time around it did not play well, and a ten-year storm almost swept him away along with a few others.

Crotty's relation of the 'Baltimore affair' gives a very factual description of one of the sorriest chapters in recent history in the world of science. The details are abundant, and the narration is spiked with comments from a few close observers. But the biographer sticks to the obvious, and only shyly weighs in the human factor. We learn most of what Baltimore did, a lot of what he thought, but almost nothing of what he felt—he who had his integrity so violently questioned. As well, Crotty advances a few hypotheses to explain the bloodthirstiness of the 'Harvard Mafia',

the crusade led by James Watson, and the vendetta orchestrated by the Rockefeller barons. A few years have passed since the affair ended, and it seems that more journalistic inquisitiveness could have been used to probe the once unstoppably vocal 'white knights' and look in more depth at the psychological underpinnings of the whole saga. Much of the story would boil down to jealousy, hypocrisy, ruthless opportunism, public manipulation and Kafkaesque judicial inconsistencies, but it would also reveal an initial underestimation of the seriousness of the situation, misevaluation of the enemies' powers and over-optimism in one's ability to stop a maelstrom—ultimately, a tale of terrible moral injuries and of friendships forever destroyed. A scientific premise indeed, but at its very heart much of what theater plays and movies are based upon. And in the purest Hollywood tradition, the last image is that of the victorious Jedi riding in the Californian sunset. Most likely still wounded, but that does not show onscreen.

This said, I wholeheartedly recommend *Ahead of the Curve*. Crotty's writing style is a hit, he brings the science to everyone's level, and he has a great story to tell. A perfect summer book, whether to lie on the beach, to rough it up in the mountains or to spend lazy evenings on the porch. Good for the brain, good for the soul!

The Executive Brain: Frontal Lobes and the Civilized Mind

by Elkhonon Goldberg

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The Executive Brain is a popular account of the importance of the frontal lobes for human functioning. The autobiographical elements in the sections that deal with Goldberg's decision to leave Russia for the United States appeal to non-scientists, as do the reminiscences about the role of his mentor Alexander Luria in

