

DATE: June 30, 2049  
 TO: Alpha Geek  
 Wetware Division, Microzoom Corp.  
 FROM: Eva Bushman, Ph.D.  
 Nike University at Portland  
 SUBJECT: **Wetware performance problems**

I recently downloaded your new microvisualization program onto my 5-gig temporal chip, but I am having trouble accessing all of the features you promised in your advertising. I had no trouble establishing a link with my visual cortex and was immediately able to zoom in on the dust mites that inhabit my desktop. They were spectacular! Using a hair, I probed a dust mite to see whether I could irritate it as much as its cousins have been irritating my nasal passages. (It was unimpressed.) This is far better than the scanning electron microscopy techniques I learned as an undergraduate! Unfortunately, I have been having trouble with smaller subjects. Here are some examples:

- Your advertising assures us that it is easy to zoom in on molecules and to visualize secondary and tertiary structures. I could visualize denatured proteins, but when I tried “flying” through the folded proteins, everything was a big blur. I could barely see the outlines of helices, but when I tried to trace the linking regions in a globular domain, I was unable to make out the exact structures. I didn’t even come close to seeing disulfide bridges or close encounters of water molecules and hydrophilic residues, as your company claims to have done.

- I tried sequencing some ssDNA strands and was unable to visualize the methylated cytosines. I could see the outline of the ssDNA, but couldn’t focus enough to identify the methyl residues. Using the fluorescence filter, I was able to observe the markers on the adenine and thymine, but this was not enough information to tell me where I was on the DNA strand.

While this Wetware program is indeed fun, I fail to see how you can advertise such spectacular resolution. I was excited about having this tool to use in my lab, but with its present performance, it won’t be useful to me except as entertainment. Perhaps there is an enhancer missing from my version. I will forward a copy of the downloaded program to you so that you can scan it for bugs or deletions.

ATTACHMENTS: 1

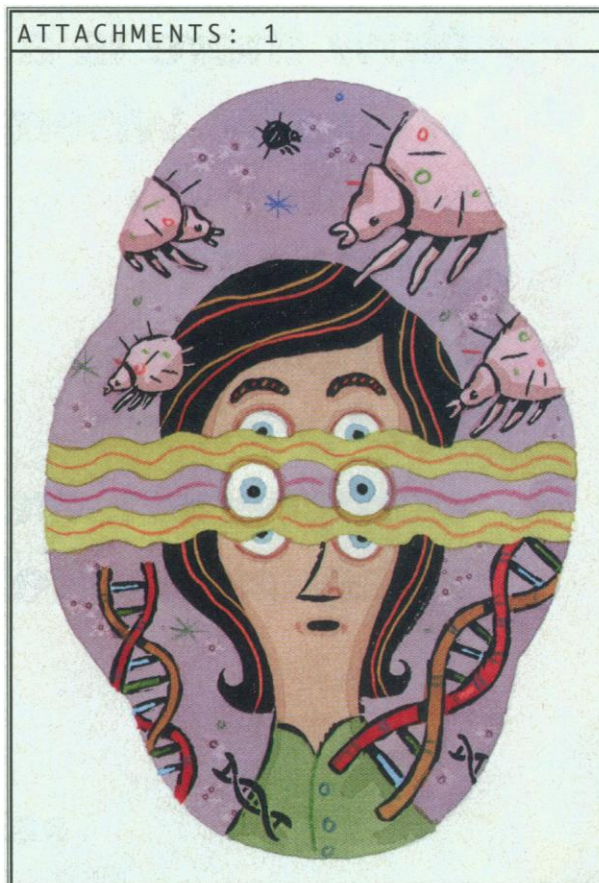


ILLUSTRATION BY ADAM MCCAULEY

Eva Marie Bushman is a baby-boomer and former teacher who is having a wonderful time studying molecular biology and biochemistry, hoping eventually to earn a Ph.D. and to do biological research. Eva Marie Bushman, Portland, OR, USA. E-mail: evabushman@aol.com

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