

The biotechnology industry requires highly skilled workers to staff the research laboratories which are developing the innovations which will build the bioeconomy.

Such workers need direct training in the research laboratory which has traditionally come as a byproduct of government funding of scientific research (predominately NSF and NIH). Notably though, while NSF specifically incorporates the training of such students (the future workers of the biotech industry) into its funding decisions, NIH does not.

In the past, this has not been a major issue, however, the projected contraction/train wreck in regard to NIH funding of biomedical research is resulting in reductions in enrollment in biomedical science graduate programs nationwide. Basically, if the faculty whose research programs are training these students do not get funding, there are no resources for graduate students to perform the expensive scientific experiments necessary for their training.

Since NIH does not place any emphasis on training in funding decisions for its major grant award (the "RO1"), laboratories who take on the training of graduate students (who are often less productive than other employees who already are trained) the current funding climate puts the training of graduate students at great risk.

Unless this is dealt with soon at the level of high level policy, there will be a significant shortage in available staffing for our biotechnology research efforts between 5-10 years down the line (students entering graduate training for the Ph.D. in a life science in fall 2012 will complete training somewhere between 2017-2022 depending on whether postdoctoral studies are pursued). Without these critical workers, the future status of the industry is in doubt.

This will also result in further tax base erosion because the students who are not admitted this year who otherwise will be will not have the skills necessary to take these highly paid jobs.

One thing to note, the unemployment rate for biomedically trained Ph.D.s is still extremely low even with the current state of the economy. We are not training too many now and only shortages for industrial positions can be projected with the current trends. I am guessing that we will admit 1/2 or less students to our MS/Ph.D. degree program this year than in the past several years due to the current status of biomedical research funding.

Best,

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