

## Bioeconomy Response

Dear Reader-

I would like to respond to the questions you posed regarding the role education institutions and private sector should play in training the future bioeconomy work force. I hold a Ph.D. in Neurobiology from the University of Chicago. I spent 14 years teaching and conducting research at a Medical School, and the past 5 years developing patents into new diagnostic tests. During my academic career I was supported, for the most part by NIH grants, and some non-GMO foundation funding. My private sector work has been funded from corporate budget, and occasionally through an SBIR.

There is a need in our laboratories for practically trained individuals who have the knowledge base needed to excel in biopharmaceutical manufacturing of regenerative therapeutics and molecular diagnostic. The necessary skills can be taught at community colleges, as well as, four-year colleges and universities. It is not necessary to have a PhD to have the skills needed.

Specific bio-manufacturing degree programs with AA, BS and MS can be established as a private/public sector collaboration, and a professional society could be encouraged to generate “board exams” that indicate varying levels of competency around cGMP manufacturing, quality control, design master files, etc.

Specific federal funding in the way of scholarship for training at community colleges, colleges and universities should be made available to help entice students into this career path. Educational institutions could apply for grants that help them build such programs if they secure matching funds from a non-GMO source.

In order to fund these programs without cutting into the strapped NIH budget I would change the how revenue from patents resulting from NIH-funded research is distributed. Currently University Research Associations, who file patents, collects the majority of the funds, and although they claim to use this money to drive innovation, I would like to see a small portion of the proceeds return to the NIH to fund training programs at the bachelors-degree level and below. The average American tax-payer has long paid to fund this research without being able to readily discern the advantage they receive. By using a portion of the royalties to fund scholarships the public would benefit more directly from NIH funding, and we would create a skilled work-force with incomes sufficient to afford the goods and services their industry produces.

This is just one idea on how provide people with good paying jobs, and improve the quality of life for all of us.

*Eugenia M. C. Jones, PhD*  
*Chief Strategy Consultant*  
*Gist Consulting LLC*  
*Madison, WI*  
[www.gistconsultingllc.com](http://www.gistconsultingllc.com)

&

*Honorary Fellow*  
*University of Wisconsin- Madison*  
*School of Medicine and Public Health*  
*Department of Physiology*