

Applying CNS-ASU Lessons Learned to Synthetic Biology

Synthetic biology researchers are working to develop renewable biofuels, more efficient crops, environmentally friendly chemical production, and cutting-edge disease diagnostics and therapeutics. Yet along with all the promise of synthetic biology to transform society for the better, there are also societal concerns related to ethics, unintended consequences, governance, and research funding.

Building on CNS's success in developing research, collaboration, and methods to promote responsible innovation, CNS director David Guston, together with Richard Murray of Caltech and ASU colleague Jenny Dyck Brian, hosted an NSF-sponsored workshop to develop research agendas for the societal aspects of synthetic biology. A key conclusion of participants was the desire to co-construct synthetic biology, with power distributed equally between the social sciences/humanists and the natural sciences/engineering.

Held 4 – 6 November 2014 in Tempe, AZ, the workshop brought together more than 100 participants

from the US, Canada, and Europe representing academia, industry, government, and non-profits to generate and articulate a set of research questions. A detailed public website with videos of workshop presenters, interviews with participants, background papers, posters, and short reflections and commentaries on the workshop is available at www.cns.asu/synbio.



In February 2015, the *Journal of Responsible Innovation*, founded by David Guston in 2014, published a special section featuring 17 “Perspectives” pieces on responsible research and innovation in synthetic biology derived from two-page background papers submitted by participants prior to the workshop.

Dr. David Guston, director of the Center for Nanotechnology in Society at ASU, is widely published and cited on research and development policy, technology assessment, public participation in science and technology, and the politics of science policy.

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WORKSHOP ON RESEARCH AGENDAS IN THE SOCIETAL ASPECTS OF SYNTHETIC BIOLOGY



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