Philip T. Pienkos, J Fundam Renewable Energy Appl, 5:5
http://dx.doi.org/10.4172/2090-4541.S1.002

OMICS International
conferenceseries.com

International Congress and Expo on
Biofuels & Bioenergy
August 25-27, 2015 Valencia, Spain

The Algae Testbed Public Private Partnership (ATP3): Facilitating the commercialization of algal technologies

Philip T. Pienkos
National Renewable Energy Laboratory, USA

The Algae Testbed Public Private Partnership (ATP^3), a multi-institutional effort funded by the US Department of Energy has established a network of operating testbeds that brings together world-class scientists, engineers and business executives whose goal it is to increase stakeholder access to high quality facilities by making available an unparalleled array of outdoor cultivation, downstream equipment, and laboratory facilities. ATP^3 utilizes the same powerful combination of facilities, technical expertise to support TEA, LCA and resource modeling and analysis activities, helping to close critical knowledge gaps and inform robust analyses of the state of technology for algal biofuels. ATP^3 includes testbed facilities at ASU's Arizona Center for Algae Technology and Innovation (AzCATI), and augmented by university and commercial facilities in Hawaii (Cellana), California (Cal Poly San Luis Obispo), Georgia (Georgia Institute of Technology), and Florida (Florida Algae). ATP^3 uses its facilities to perform coordinated long term cultivation trials producing robust, meaningful datasets from this regional network determining the effects of seasonal and geographic variations on algal cultivation productivity. This presentation will provide a summary of the ATP^3 capabilities as a user facility as well as outreach efforts to connect both local and international customers with resources. It will also provide a summary of the experimental framework termed "Unified Field Studies" (UFS), with year-long cultivation experiments using two different algal strains across five distinct geographic regions using standardized mini-raceway ponds.

Biography

Philip T. Pienkos earned his BS in Honors Biology at the University of Illinois and his Ph.D, in Molecular Biology at the University of Wisconsin. He has nearly 30 years of biotechnology experience in the pharmaceutical, chemical and energy sectors. He is a co-founder of two companies: Celgene, an established biotech/pharma company, and Molecular Logix, a case study for technology-rich/funding-poor biotech startup. He joined NREL in 2007 as a section supervisor and now holds the title of Principal Group Manager for the Bioprocess R&D Group in the National Bioenergy Center. His group is involved in various aspects of strain development, process integration, compositional analysis, catalytic upgrading, and molecular modeling for advanced biofuels based on a wide variety of feedstocks including lignocellulosic biomass, algal biomass and methane. In addition to his line management responsibilities, he is also the Algal Biofuels Platform Lead for the National Bioenergy Center at NREL and serves as lead for a number of projects that are relevant to this proposal, including the BETO funded Lipid Catalysis Project and the ARPA-E funded Biological Gas to Liquid Project (part of the REMOTE Program). He is part of a team of algae experts from NREL and Sandia National Laboratories who worked with the Department of Energy to organize National Algal Biofuels Technology Roadmap Workshop held in December, 2008 and was a contributor to the National Algal Biofuels Technology Roadmap document, published in May, 2010. Philip is a founding member of the Algae Biomass Organization and has served as a member of the board of directors for that organization from 2008 to 2013. He is currently on the board of directors of the Algae Foundation. He was named in Biofuels Digest's list of the top 100 people in biofuels for four years running.

philip.pienkos@nrel.gov

Notes: