

Matrix Genetics: Cyanobacterial biofuel program

Company: Matrix Genetics is a biotechnology subsidiary of Targeted Growth Inc., located in Seattle, Washington and focused on improving cyanobacteria as a platform for biofuel production. Through application of metabolic engineering, classical genetics and systems biology approaches, Matrix Genetics has established a scientifically dynamic and rigorous culture that uses creative problem solving to develop and optimize transformative algal biofuel technologies. Matrix Genetics was formed 4 years ago as a research group within Targeted Growth, but its success has led to its spin-out as an independent company.

Positions: Matrix will be expanding three team-oriented research programs and has open positions in each program at the, senior scientist, scientist and research technician levels. Senior scientists are expected to have at least 3 years of postgraduate academic/industrial experience, and experience training and managing junior scientists. Scientists must have completed a Ph.D. program.

Program One: Metabolic engineering of neutral lipid production in cyanobacteria.

Matrix Genetics has made fundamental discoveries that have significantly advanced the use of cyanobacteria as a platform for the production of biofuel precursors in the form of neutral lipids. Further development of this research program requires the creative application of pathway engineering to optimize complex metabolic pathways, especially in the area of neutral lipid biosynthesis. This is an interdisciplinary, team-driven project requiring skills in molecular biology, biochemistry, genetics and microbial physiology. Previous experience with enzyme biochemistry, including acyl-transferases, is a plus.

Program Two: Control of carbon flux in cyanobacteria

Matrix Genetics is building upon exciting new insights into the flux of photosynthetically fixed carbon in cyanobacteria in order to substantially improve the yield of various hydrocarbons that can be used as biofuels or other valuable chemicals. Matrix is seeking talented scientists to expand this program with expertise in microbial physiology, carbon and energy metabolism, and interest or experience in systems-level analyses of intermediary metabolism (metabolomics, transcriptomics). Experience in photoautotrophic metabolism is a plus.

Program Three: Biomass improvement/photosynthesis

Matrix Genetics is initiating a new effort to address limitations in light harvesting in cyanobacteria. Both classical microbial genetic and reverse genetic approaches are planned, and we are therefore seeking adventurous scientists with expertise in the biochemistry and molecular biology of photosynthesis especially focused on the

structure and function of light harvesting complexes and the monitoring of photosystem activity.

Position Inquiries:

Applicants should submit a copy of their CV with a cover letter to jobs@matrixgenetics.com. The cover letter should address how the applicant envisions their background and skill set supporting Matrix research efforts. All applicants should indicate their program number of interest and qualification level in the email and cover letter headings.