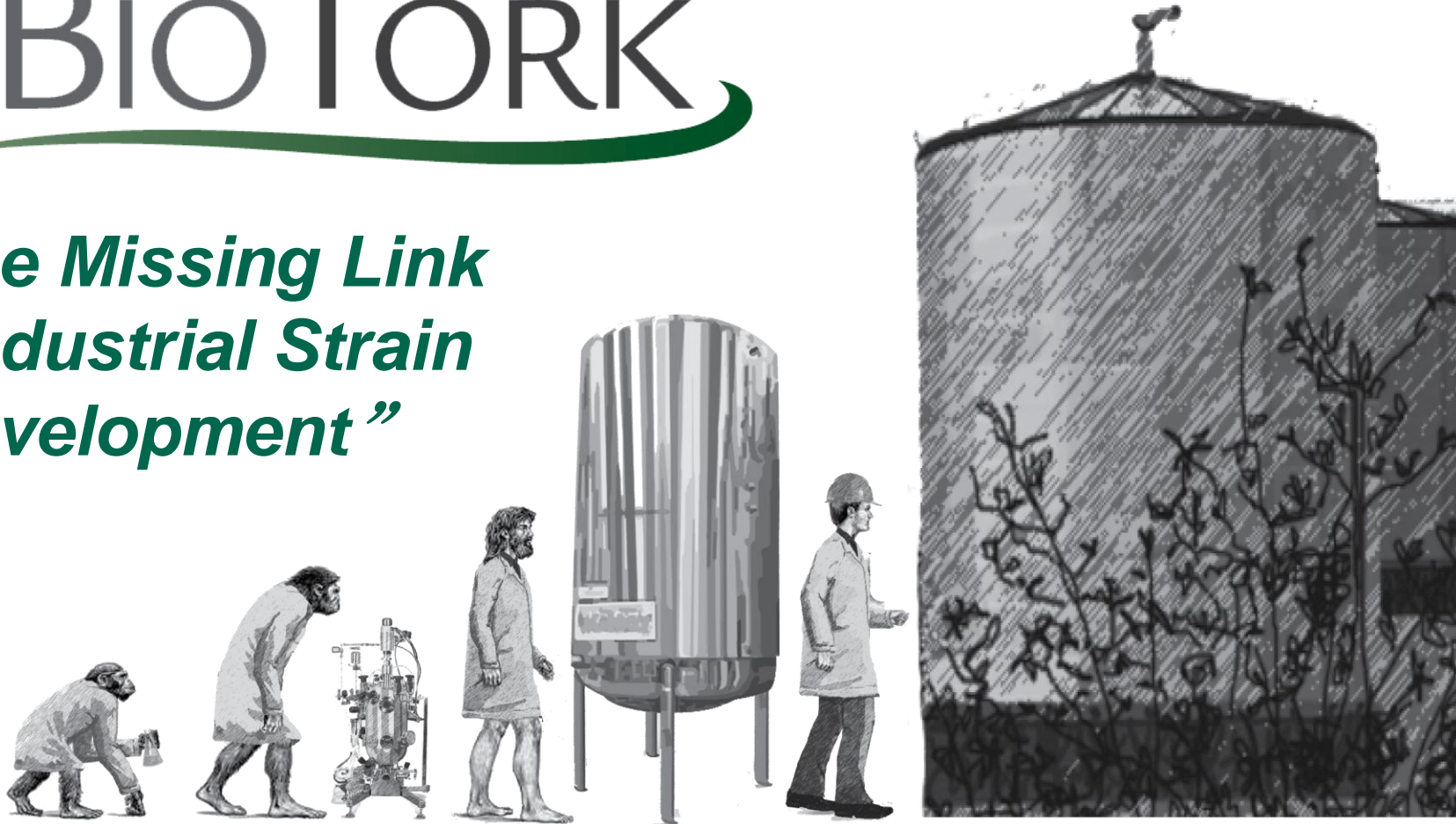


BIO TORK

*“The Missing Link
in Industrial Strain
Development”*



Making Biofuels Sustainable

The Central Problem with Biofuels and Biorenewable Chemicals is Robustness

Fast Growth Rate on Ideal Substrates:
Estimated \$100MM capex



2x Slower Growth Rate on Real
World Substrates: Actual \$200 MM



Example: Agroindustrial Waste to Fish Feed



Vegetable Oil



Waste Glycerol



Biodiesel

BioTork Adapted Heterotrophic Alga

High-Fat Algae Meal



Oil

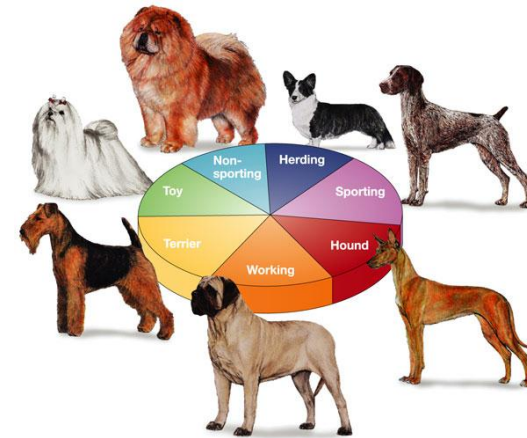


Feed for Aquaculture



Making Biofuels Sustainable

Accelerated Evolution to “Breed” Robustness



Nature Reviews | Genetics

	Lipid Titer (g/L)	Lipid Stoichiometric Yield (g/g glycerol)	Cellular Lipid Content (% dry weight)
Unevolved	0.3 ± 0.1	0.1 ± 0.1	7.3 ± 0.5
Evolved	3.1 ± 0.1	0.3 ± 0.8	55.7 ± 2.5

Thank You.....



NCERC
at SIUE



BioTORK

Making Biofuels Sustainable