



TAXA

Investor Presentation
May 2016



A Bioengineered World

Plants are amazing, they are like
mini-solar powered factories.

Economics – Glowing Plant – Shipping Fluc v1



Generates Cashflow

\$650K Pre-orders
90%+ Gross Margin

Positive Story

Marketing for Biofab

Proved Science

Best assay for
developing platform

* Long exposure photograph, luminosity still being enhanced

Fragrant Moss – ready to ship



New Creative Media – addressing EPA issues



Maker Kit – Shipping in Beta



How We Make Money

Collaborative Research Agreements

- We partner with other companies on the development of some new products
- We have signed three of these agreements with one additional in the final stages of contract review
- Depending on the nature of the research goals these revenues are either milestone based or monthly recurring payments
- These agreements are priced at the cost for us to complete the work, our profit comes from sharing in the revenues from the completed product

Sale of Products

- We earn revenues from the sale of completed products to consumers
- Products developed internally, like the Glowing Plant, typically have high gross margins (>90%)
 - In some instances where another party has a patent claim on part of the product we may also pay out royalties to third parties
- Products developed under collaborative research agreements earn us royalties of between 7.5% and 92% of revenues depending on how much risk we incur on the project
 - Typically we have no costs with these as the partner handles manufacturing

Partnership Model

Funding

Consumers
(eg Kickstarter)

Patent Owners
(eg Blue Rose)

Distributors
(eg Zelenka)

Organism Development

TAXA

Distribution

Direct to Consumer
(online, seeds)

Growers
(eg Zelenka)

Florists

Florists

Retailers
(eg Lowes)

Partner Value Proposition



**Reusable DNA
Parts**



**Access to
Expertise**



**Agile
Development**



**Multi-gene
Constructs**



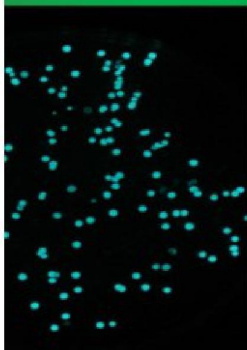
Automation



**Unregulated
Products**

Technology Stack

PROTEIN ENGINEERING



We have two systems that allow us to perform protein engineering on the entire pathway:

Directed Evolution: we mutagenize the plasmid randomly and then screen for variations which improve performance. This is faster and cheaper than the saturation scan but produces more false positives which improve the genes in E. Coli but don't translate into plants (eg through codon optimization)

Saturation Scan: We step through each codon in the pathway and substituted the other 19 possible amino acids that could be inserted at that point. We've tested this on pathways up to 2,000 amino acids long. Hits generated with this method are more likely to translate into higher performance in plants, but the process is more expensive than directed evolution.



AUTOMATED DNA ASSEMBLY SYSTEM



We've automated our DNA assembly system which means no more nights in the lab working on cloning. Currently all of our parts are in the Golden Braid assembly system, we are in the process of adding support for MoClo parts. You can design your sequences using your favorite DNA editing software

The list and description of available parts can be found on github at <https://github.com/TAXA/DNALibrary>.



TRANSIENT EXPERIMENTS

Transient experiments are designed to enable you to test a DNA construct quickly and without the expense of a stable transformation. This allows a relatively large number of constructs to be tested quickly and affordably. The key bottleneck here is the assay. We are developing new protocols all the time - currently we offer the following experiments:



- Callus: Arabidopsis, N. tabacum, Rose
- Seedlings: Arabidopsis, N. tabacum, Petunia
- Leaf tissue: N. tabacum
- Petal tissue: Rose, Petunia
- Epidermis: Onion

STABLE TRANSFORMATION

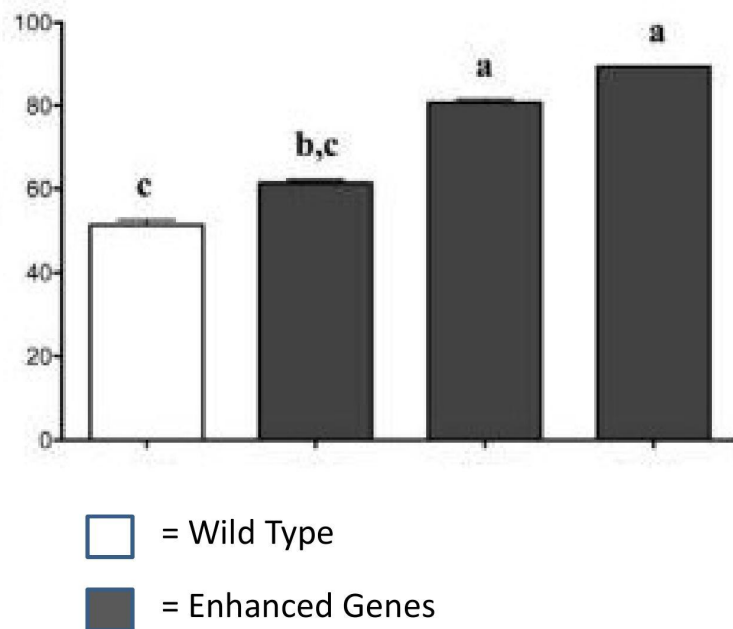
We generally use the biolistic method for stable transformation, though we do have agro-bacterium methods available in case you want to prototype a construct more cheaply.

While the biolistic method is slower and more expensive to generate a single plant, it's key advantage is that - if care is chosen with DNA parts used - the final product is immediately free for sale and distribution in the United States without requiring regulatory review. This saves years and millions of dollars from the budget for getting the product to market.



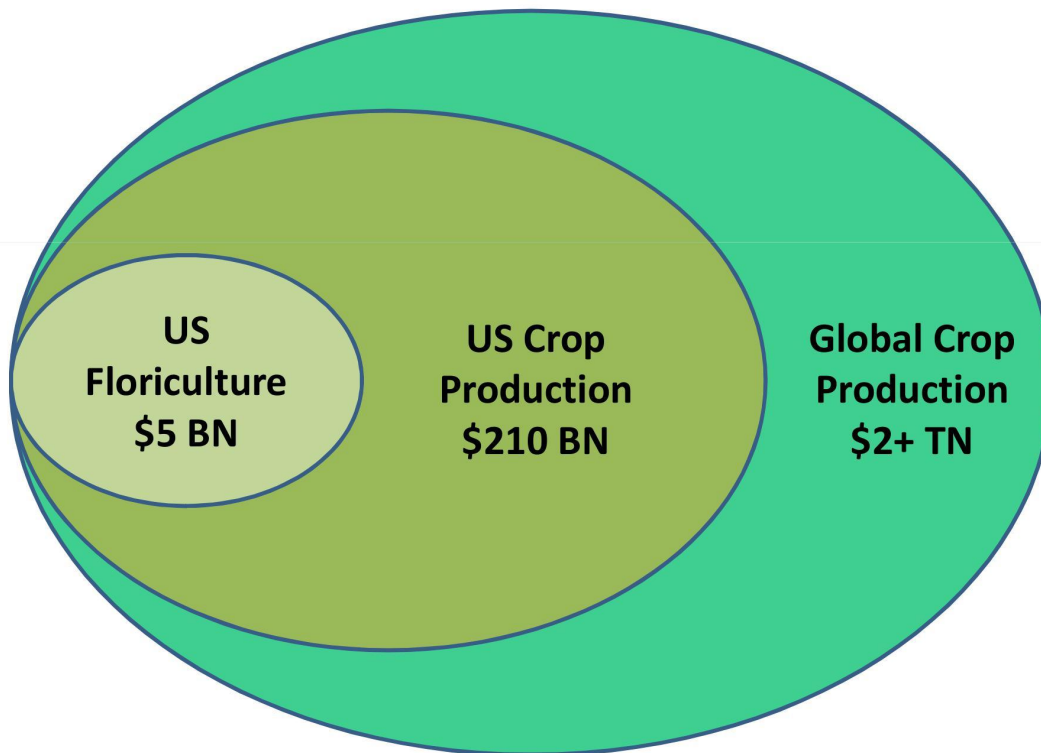
Fast Growing Lettuce – Biz Dev

Biomass of Engineered Lettuce

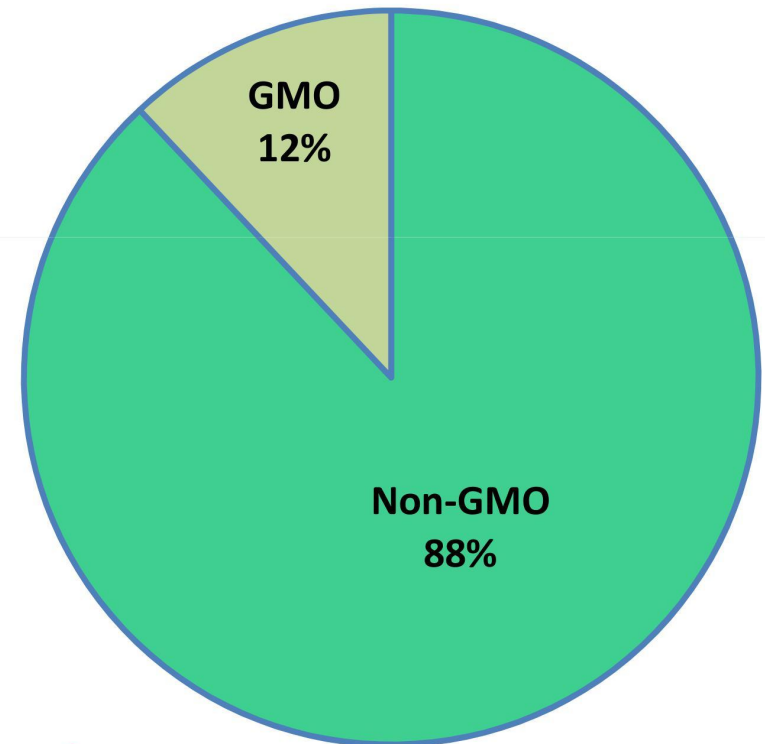


Long Term Addressable Market

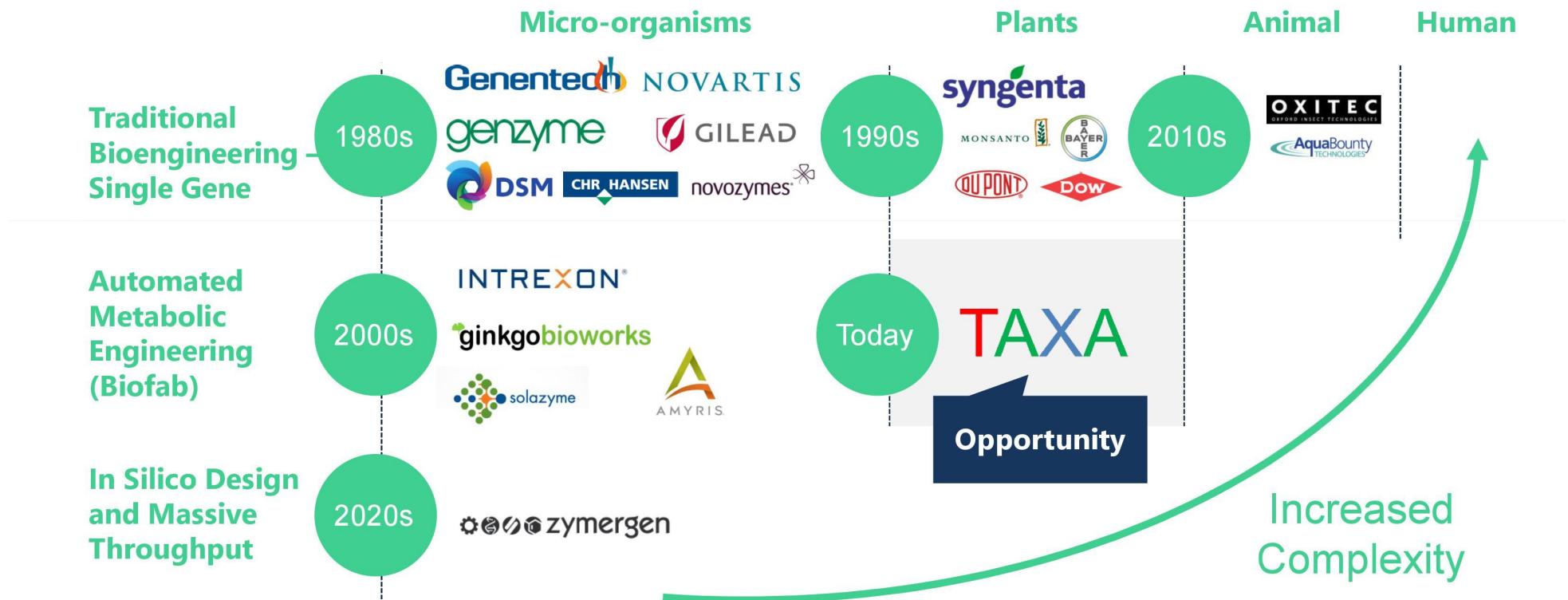
Agriculture production (wholesale income)



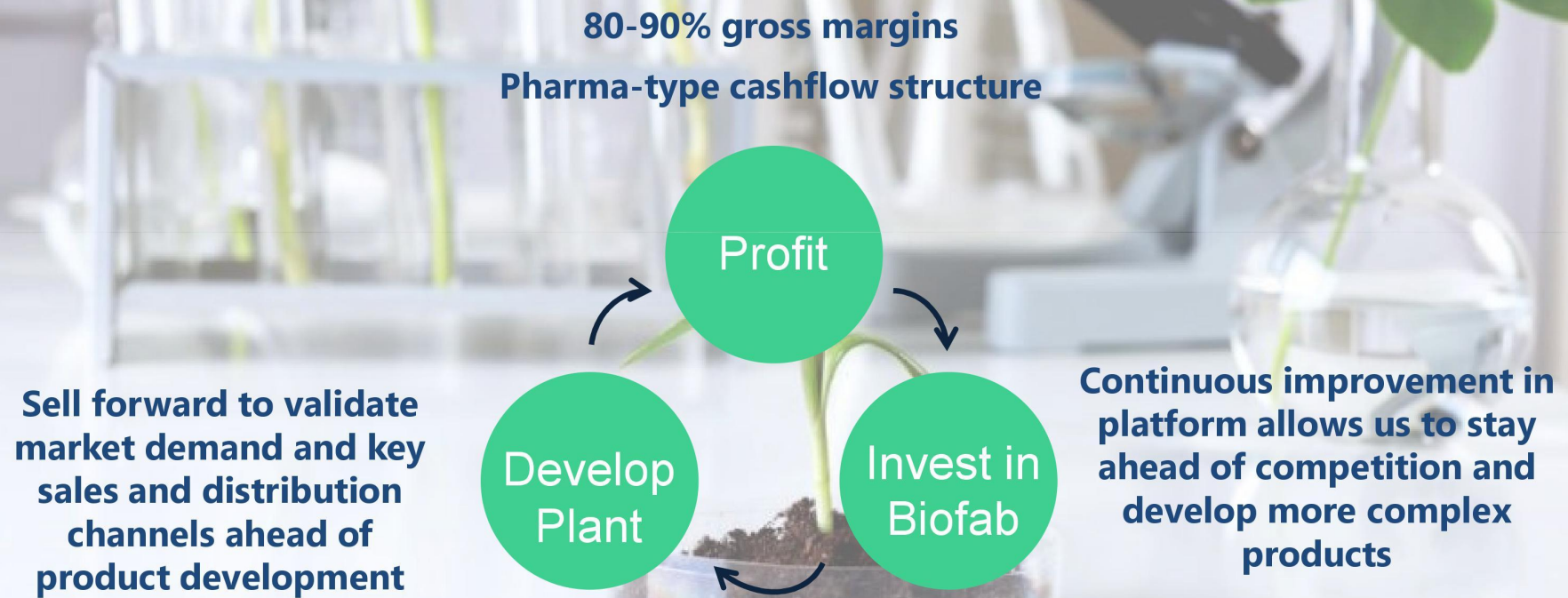
Engineered Crops



Competitive Landscape



Sustainable Strategic Advantage



Management



Antony Evans
Founder & CEO

- MA in mathematics from University of Cambridge
- MBA from INSEAD
- GSP Singularity University
- Consultant at Bain & Company



Dr. Jihyun Moon
Chief Scientific Officer

- PhD & post-doc in Plant Biology at University of California, Berkeley
- BS/MS in biology at Seoul National University



Dr. Jamey Kain
Senior Molecular Scientist

- PhD & post-doc in Molecular Biology at Harvard University
- BS in Cell & Molecular Biology at University of California, Berkeley

Accomplishments + Milestones

2014-2015

Early Seed - \$450K

- ✓ TAXA Market Validation
- ✓ Science Proof of Principle
- ✓ Regulatory pathway validation
- ✓ \$650k crowd funding

2016-2018

Late Seed - \$1-2MM

- ☐ Distribute first Product
- ☐ Build PlantFab1
- ☐ Grow revenues to \$5MM ARR
- ☐ Build full team
- ☐ 15 TAXA partnerships
- ☐ Fortune 500 partner

2019 Onwards

Series A - \$5MM+

- ☐ Build PlantFab2
- ☐ Launch API/Cloud lab



TAXA

Thank you!

www.taxa.com

antony@taxa.com

+1-415-779-6333