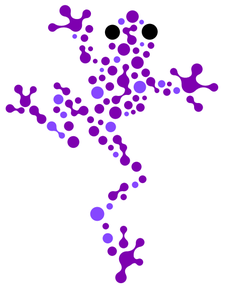
LIFE SUSTAINING

BREAKTHROUGHS

xenomics™



DISCLAIMER

Certain information set forth in this presentation contains "forward-looking information", including "future oriented financial information" and "financial outlook", under applicable securities laws (collectively referred to herein as forward-looking statements). Except for statements of historical fact, information contained herein constitutes forward-looking statements and includes, but is not limited to, the (i) projected financial performance of the Company; (ii) the expected development of the Company's business, projects and joint ventures; (iii) execution of the Company's vision and growth strategy, including with respect to future M&A activity and global growth; (iv) sources and availability of third-party financing for the Company's projects; (v) completion of the Company's projects that are currently underway, in development or otherwise under consideration; (v) renewal of the Company's current customer, supplier and other material agreements; and (vi) future liquidity, working capital, and capital requirements. Forward-looking statements are provided to allow potential investors the opportunity to understand management's beliefs and opinions in respect of the future so that they may use such beliefs and opinions as one factor in evaluating an investment. These statements are not guarantees of future performance and undue reliance should not be placed on them. Such forward looking statements necessarily involve known and unknown risks and uncertainties, which may cause actual performance and financial results in future periods to differ materially from any projections of future performance or result expressed or implied by such forward-looking statements. Although forward-looking statements contained in this presentation are based upon what management of the Company believes are reasonable assumptions, there can be no assurance that forward-looking statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. The Company undertakes no obligation to update forward-looking statements if circumstances or management's estimates or opinions should change except as required by applicable securities laws. The reader is cautioned not to place undue reliance on forward-looking statements.

IMAGINE A BETTER CRISPR

CRISPR CAS9

TRADITIONAL GENE EDITING: ONE OF THE MOST COMMON TECHNIQUES FOR GENE EDITING

Single edits:

- 50-60 base pair edits or gene inserts
- 1 strain per experiment
- 8 weeks per experiment on average to: synthesize DNA, perform transformations, assay results
- High error rate

XENOARRAY™ BY XENOMICS

NEXT GENERATION GENE EDITING: ADDING GENES, ENZYMES AND PATHWAYS

Parallel edits:

- 8,000 base pair gene inserts
- 3k unique cell strains in parallel
- Single 8 week experiment is comparable to 460 years of iterative CRISPR
- 160 quadrillion unique combinations of promoters, terminators, and/or genes
- 1 to 8 unique genes

EXECUTIVE SUMMARY

- Engineering biotechnology solutions is a slow, expensive, and erroneous process.
- Humanity needs biotechnology to combat major sustainability issues in **food, energy, and health**.
- Our team of scientists trained at Harvard and MIT are designing a better bioengineering process
- Our core technology is a novel gene-editing technique capable of performing over **~400 years of CRISPR in 8 weeks**.
- Similar companies have generated spinoffs worth **$30B+**.
- Our current product pipeline could potentially prevent **18 million deaths per year**.
- We are currently working on specific practical applications: biopharmaceuticals, vaccines, recombinant human breastmilk, cell therapies, cultured meats & dairy, water desalination, cannabinoid nutraceuticals, pharma-psychedelics, food flavors, and perfume scents.

WHO WE ARE

Exponential Genomics Inc. (Xenomics) has built a team of scientists trained at Harvard and MIT that utilize genetically modified microorganisms to manufacture compounds identical to those found in nature. Our core technology is a novel gene-editing technique capable of performing over 400 years of CRISPR in 8 weeks.

Current commercialization projects include streamlining the manufacturing of biopharmaceuticals, vaccines, recombinant human breastmilk, cell therapies, cultured meats & dairy, water desalination, cannabinoid nutraceuticals, pharma-psychedelics, food flavors, and perfume scents.

BIOLOGICS & BIOPHARMACEUTICALS

VACCINE MANUFACTURING

BREASTMILK

CELL THERAPIES

CULTURED MEATS & DAIRY

WATER DESALINATION

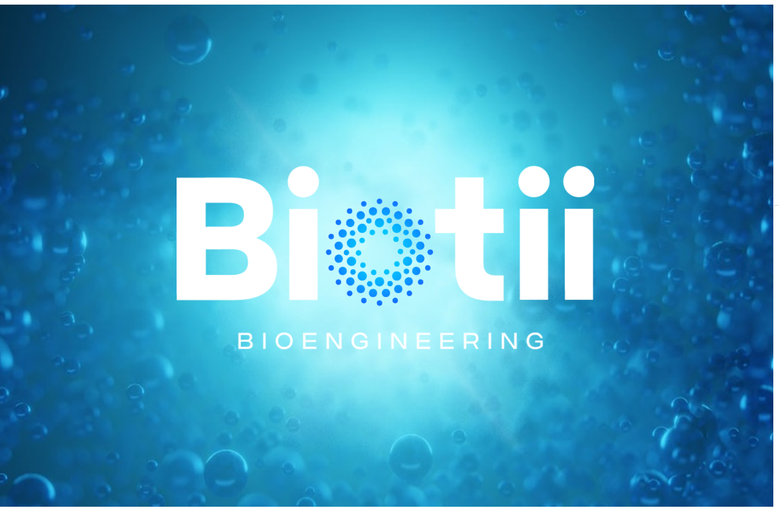
CARBON RECYCLING

CANNABINOID NUTRACEUTICALS (BIOTII)

PHARMA-PSYCHEDELICS (BRAINBRIDGE)

FOOD FLAVORS & PURFUME SCENTS

OUR CUSTOMERS



TERMS

- Biotii engaged Xenomics to bio-synthesize cannabinoids and provide Biotii with an exclusive license to manufacture cannabinoids through this proprietary process.
- $6 million in revenue generated to date of which $1.5 million has been paid

Milestone payments

- $5 million for the successful bio-synthesis of CBGA (Completed)
- $5 million for the successful bio-synthesis of other cannabinoids (in progress)

- Subsidiary of Xenomics (58% owned)
- $500,000 fee on signing licensing agreement (Paid)
- Minimum $2.4 million Floor Foundry Access Fee payable in $100,000 per month advances

Milestone payments payable as follows:

- 20% of cash flow generated from Biotii operations;
- 50% of any funds raised by Biotii; and
- 100% on the Change of Control of Biotii

BIOTII BUSINESS MODEL

- Manufacture bio-synthetics cannabinoids through its exclusive licensing agreement with Xenomics
- Currently have a signed Letter of Intent with AgraFlora Organics International for Offtake once commercialized
- In discussions with other top tier Cannabis companies seeking offtake

EST. 2018
AGRAFLORA
GROUP of INDUSTRY EXPERTS

WHY BIOTECHNOLOGY MATTERS

BIOPHARMACEUTICALS

Numerous conditions have limited treatment options, R&D averages $2.5B and 10+ years [9]

GLOBAL HUNGER

805 million people worldwide lack enough food to eat [3]

DEPLETION OF FOSSIL FUELS [8]

Oil could end by 2052, Gas could end 2060, Coal could end 2090

FRESH WATER SHORTAGES

5M deaths annually, 750M people lack access to safe and clean drinking water [5,8]

VACCINE DEVELOPMENT

4.3M deaths annually relate to rapidly mutating viruses from respiratory infections and diarrhea alone [10]

UNSUSTAINABLE MEAT & DAIRY

Meat consumption is on pace for 450M tons by 2050 while our global agriculture system was stressed to produce 335 million tons in 2018 [5]

LAND HABITATS & OCEAN DESTRUCTION

17% of ocean fish stocks are overexploited, 52% are fully exploited; and 7% are depleted [6]

MENTAL HEALTH CRISIS

300M people suffer from depression or anxiety, $80B spent on treatments in 2019

POOR INFANT & CHILD NUTRITION

2.39 million child deaths in 2018 due to nutrition-related factors, 45% of deaths [1,2]

TOBACCO RELATED DEATHS

7 million deaths per year stem from tobacco use worldwide [7]

CLIMATE CHANGE CRISIS

Nineteen of the 20 warmest years on record have occurred since 2001

1. www.who.int/gho/child_health/
2. www.who.int/news-room/fact-sheets/
3. FAO, IFAD and WFP. "The State of Food Insecurity in the World 2014. Strengthening the enabling environment for food security and nutrition." Food and Agriculture Organization of the UN, 2014. Web Accessed February 25, 2015
4. World Health Organization and UNICEF Joint Monitoring Program (JMP). "Progress on Drinking Water and Sanitation, 2014 Update." 2014. Web Accessed February 25, 2015.
5. UN Food & Agriculture Organization, 2018.
6. www.seafarms.com.au
7. www.who.int
8. Water_related_deaths_report3.pdf
9. www.scientificamerican.com/article/cost-to-develop-new-pharmaceutical-drug-now-exceeds-2-5b/
10. www.who.int/gho/mortality_burden_disease/causes_death/top_10/en/

HUMANITY'S FEW SOLUTIONS

Biotech is one of humanity's few solutions, but it can not scale — yet.

Biotechnology holds the potential to create a world of abundance to combat many of our biggest challenges feeding, fueling, and healing humanity.

Despite recent advancements in gene editing, CRISPR cas9, microfluidics, semi-automated robotics, and AI/quantum computing, performing molecular biology at a scale large enough to make a sustainable impact has remained an elusive challenge for decades.

PROBLEMS WITH MOLECULAR BIOLOGY INCLUDE:

1. Hard to predict experimental outcomes
2. Poor & inconsistent experimental quality
3. Challenges with scaling & expression optimization
4. Slow design-build-test-learn cycle
5. Resource, time & cost intensive

3K

MICROBIAL STRAIN ENGINEERING WITH AN AVERAGE OF 3,000+ UNIQUE COMBINATIONS

OUR SOLUTION

Our goal is to perform scaled molecular biology in weeks, not centuries. Our core technology is built on a foundation of unique wetware, software, and hardware that can generate a theoretical maximum of 160 quadrillion unique targeted combinations of microbial strains in parallel for scaled biosynthesis and other applications. We anticipate to obtain an average of 3-5 thousand unique strains before seeing diminishing returns on further assays for each experiment. CRISPR cas9 and other recent advancements have demonstrated the potential of biotechnology to solve many of the world's greatest challenges while failing to perform combinatorial gene edits with precision. Xenomics aims to perform molecular biology at scale never previously seen with higher degrees of predictability to deliver meaningful real-world results faster, and cheaper to engineer a world of abundance. In addition to working towards novel approaches to basic science. Our science team has successfully engineered microorganisms capable of metabolizing sugar water and micro-nutrients through 14+ enzymatic reactions within 9 weeks of performing our first laboratory experiments.

OUR BUSINESS MODEL

Inspired by industry leaders of innovation, Xenomics is following a business and innovation model created by Flagship Pioneering. Flagship has proven this approach to pioneering is successful with over 20 public IPOs since 2013.

Flagship spinoffs have generated over $30 billion in market value collectively. Companies with similar technical capacities (without exponential scale) are valued between $800 million to $4.5 billion.

Flagship Pioneering

zymergen

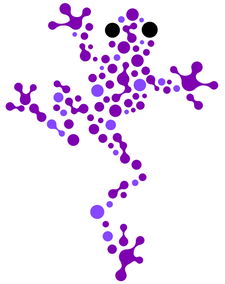
GINKGO BIOWORKS™ THE ORGANISM COMPANY

TWIST BIOSCIENCE

INSCRIPTA The Digital Genome Engineering Company

CORE TECHNOLOGIES

Our current portfolio of radically innovative technologies includes a combination of biological tools, advanced AI algorithms, and ultra-high throughput liquid handling.



SUPERORGANISMS FOR BIOSYNTHESIS

Using a simple & cheap glucose media, our current lead superorganism can produce:

- 6-20 g/L small molecules
- Up to 60 g/L proteins
- Up to 700 g/L wet weight

Opportunity for more superorganisms:

- 2.9×10^{29} single-celled organisms are estimated to live on earth [2]
- Fewer than 3k organisms have metabolomic profiles [3]
- Understanding metabolomics is the key to programming life

SCALED GENOME EDITING

XenoArray™ generates up to 160 quadrillion unique combinations for gene editing for next generation strain engineering.

Ideal for Gene Knock-Ins:
Adding Genes, Enzymes & Pathways

Key Features:

- Adjust between 1 - 1.617 unique combinations of possible transcriptional units with unique promoters, genes, and terminators
- Insertion up to ~8,000 bp
- 1-8 unique genes in 3,000+ unique microbial strains

HIGH THROUGHPUT OPTOFLUIDIC SINGLE CELL HANDLING & ANALYSIS

Xenomics can likely perform the vast majority of analytics required with commercially available equipment. The Berkeley Lights Beacon is the first optofluidic platform can ferment 15,000 strains in parallel but has a limited capacity to assay for results.

Key Features:

Through a combination of commercially available equipment and custom adaptations, Xenomics anticipates having a system that can:

- Ferment 10-15k strains in parallel for 72 hours per microfluidic chip
- Assay 9k strains per day for results

BIOLOGICAL DATABASES, AI, AND QUANTUM

Global metabolomics databases currently contain fewer than 3k species out of 2.9x1029. [2]

Understanding metabolomics is the key to programming life.

Key Data Points:

- Organisms
- DNA - Genomics
- RNA - Transcriptomics
- Proteins - Proteomics
- Biochemical – Metabolomics
- Biological Phenotype
- 6-20 g/L small molecules
- Up to 60 g/L proteins
- Up to 700 g/L wet weight

1. www.pbs.org. 2. www.astrobio.net 3. www.metacyc.org/release-notes.html

One of our favorite superorganisms is designed for high yield biosynthesis of organic compounds (small molecules and proteins) from media that costs ~$0.12 per liter. High product yields & lower costs for biosynthesis from sugar water:

6-20 G/L SMALL MOLECULE EXPRESSION

UP TO 60 G/L PROTEIN EXPRESSION

UP TO 700 G/L WET WEIGHT

SUPERORGANISMS

Radically Less Expensive Biosynthesis organism than S. Cerevisiae or E. Coli when measured by product yield/liter/hour due partially to an high cell density of up to 700 g/L wet weight.

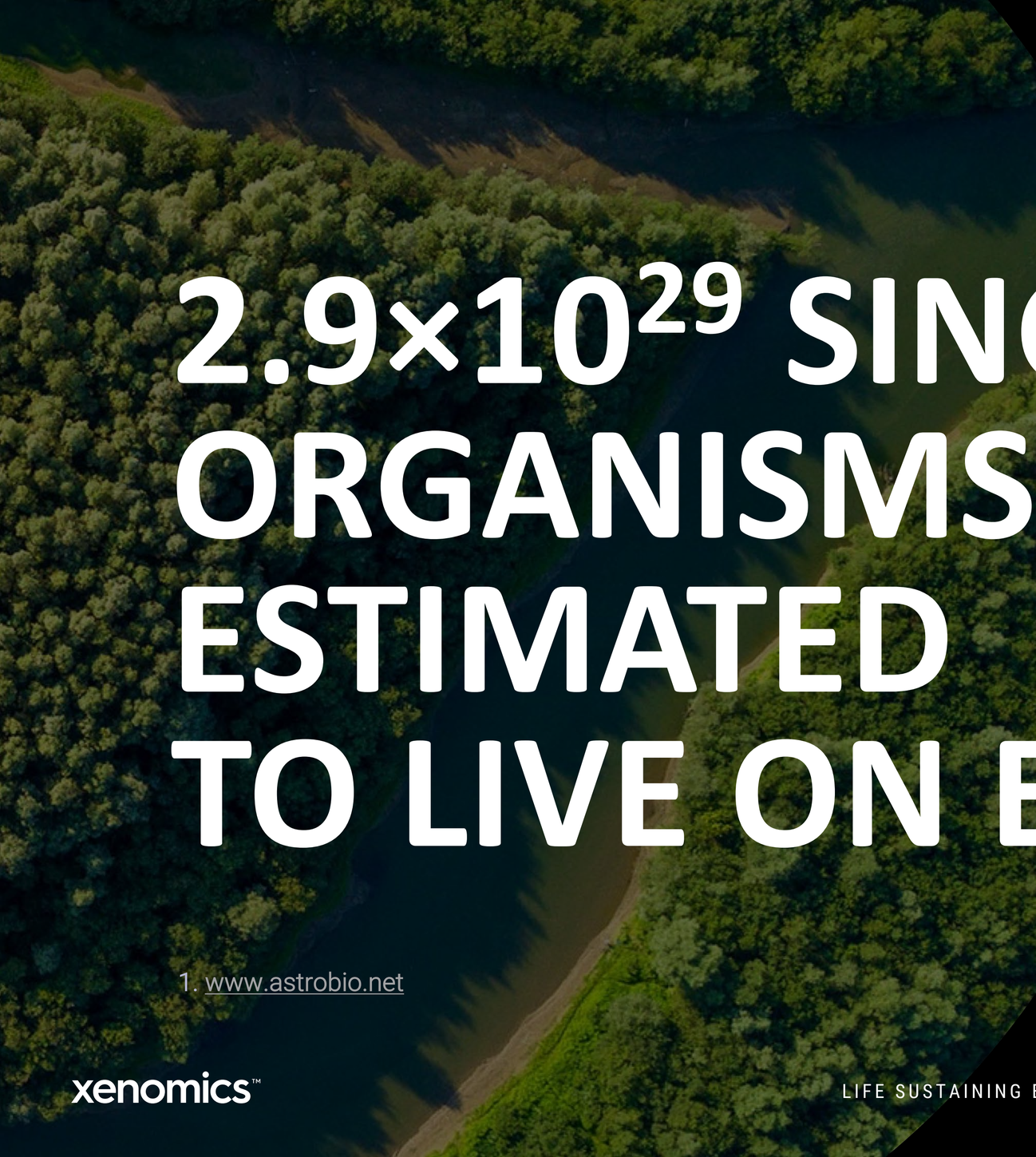
An Organism that Scales to 100,000 Liters or Greater: Although less characterized than E. coli or S. Cerevisiae, our superorganism has already been scaled to industrial fermentation levels beyond 100,000 L.

Able to perform complex post-translational modifications similar to plant or mammalian cells. A wide range of biological functions are possible through various posttranslational modifications of which phosphorylation, glycosylation and others play a critical role in biosynthesis processes.

Existing Safety Profile of a Food Grade Organism: Xenomic's superorganism is classified as GRAS (generally recognized as safe) by the U.S. FDA, limiting regulatory burdens for end-product use in food.

Cost-Effective Small Molecule Extraction: Production of isolated small molecule compounds reduces separation complexity allowing for efficient low-cost extraction depending on the purity levels desired.

Simple Protein Extraction: Our initial superorganism is an ideal protein expression biofactory with a capacity to overexpress desired protein or enzyme targets with ease.



2.9×10^{29} SINGLE-CELLED ORGANISMS ARE ESTIMATED TO LIVE ON EARTH[1]

1. www.astrobio.net

THE POTENTIAL

Life has evolved on earth for over the past 3.5 billion years[2]

Organisms have evolved to eat (metabolize) almost anything

OPPORTUNITIES FOR MORE SUPERORGANISMS[3]:

Phototrophs	Sunlight	Organic compounds (photoheterotrophs) or carbon fixation (photoautotrophs)	Cyanobacteria, Green sulfur bacteria, Chloroflexi, or Purple bacteria
Lithotrophs	Inorganic compounds	Organic compounds (lithoheterotrophs) or carbon fixation (lithoautotrophs)	Thermodesulfobacteria, Hydrogenophilaceae, or Nitrospirae
Organotrophs	Organic compounds	Organic compounds (chemoheterotrophs) or carbon fixation (chemoautotrophs)	Bacillus, Clostridium or Enterobacteriaceae

1. www.astrobio.net
2. www.pbs.org/
3. www.en.wikipedia.org/wiki/Bacteria

THE OPPORTUNITY

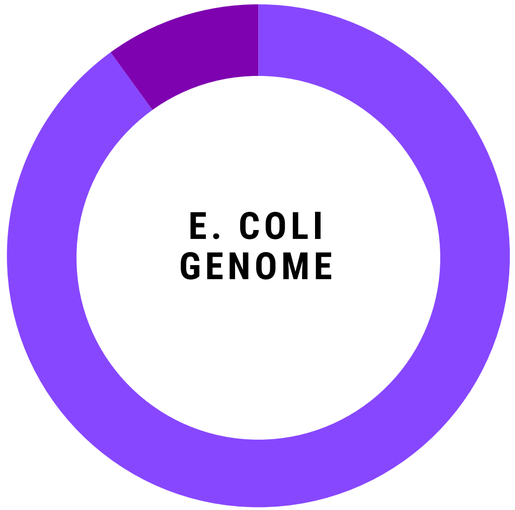
- Non-coding DNA / Unknown Function
- DNA That Encodes For Proteins

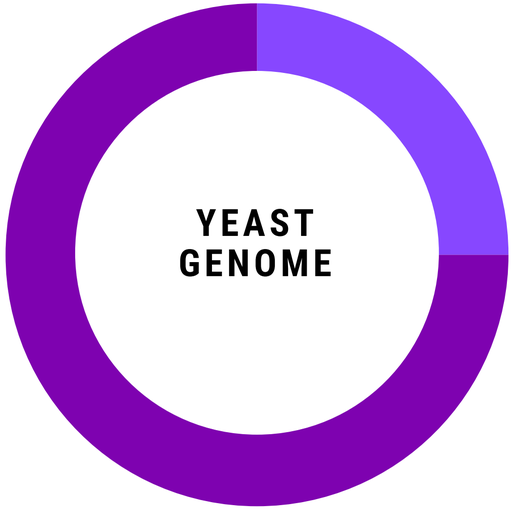
Historically referred to as non-coding DNA or even junk DNA likely holds value for future scientific discoveries.

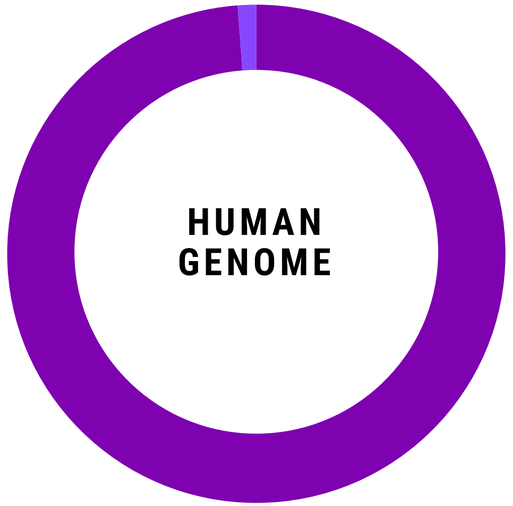
The human genome encodes for approximately 20,000 proteins, yet the DNA coding sequences for those proteins only comprises approximately 1.2% of the human genome.[1]

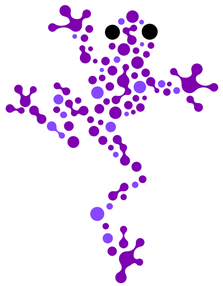
"70% of the genomic edits that reveal a phenotype that we care about are in areas of the genome that no scientists could ever discover. And about a third to 40% are in parts that don't have annotations — they are genes with no known function" Zymergen CEO [2]

1. www.synbiobeta.com
2. www.nytimes.com/2015/03/08/









TRADITIONAL METHODS

3,000 Strains — 460+ Years

XENOARRAY

3,000+ Strains — 56 Days

Ideal technology for adding
Genes / Enzymes / Pathways

XENOARRAY VS. TRADITIONAL GENOME EDITING

XenoArray generates up to 160 quadrillion unique combinations for gene editing for next generation strain engineering in vitro gene knock-ins as a novel method for molecular cloning. Allows changes to multiple transcriptional units in parallel to develop strains with numerous promoters, genes, and terminators to be developed in a combinatorial approach. The system aims to perform scaled genetic engineering in weeks, not centuries. Targeted mutagenesis has never been demonstrated at this scale ever before despite advancements in high throughput technologies or in directed evolution techniques. It is reasonable to expect at least 3-5k+ strain colonies with unique genetic traits per experiment. Our hope is that XenoArray technology enables scientific discovery that was never previously possible to become reality.

EXPONENTIALLY MORE EFFICIENT THAN STANDALONE CRISPR cas9

- CRISPR cas9 enzymes have demonstrated that single gene editing is possible in nearly all organisms, and even humans
- Combinatorial gene editing is impossible with traditional molecular biology methods or standalone CRISPR cas9 systems
- CRISPR cas9 lacks the ability to quickly iterate through multiple various of gene edits to increase efficiencies or optimize yields

KEY FEATURES:

1. 160 quadrillion unique combinations for targeted gene editing
2. Adjust between 1 to 1.6^{17} unique combinations of possible transcriptional units with unique promoters, genes and terminators
3. 1-8 unique genes
4. Insertion up to ~8,000 bp

COMPARING THE FIRST SCALED GENE EDITING TECHNIQUES

INSCRIPTA ONYX™ PLATFORM[1]

GENE KNOCK-OUTS: DISRUPTING GENES, REDUCING OR INCREASING ENZYME ACTIVITY

Parallel single edits:

- 100 to 10,000 edits:
- >30% expected edit efficiency
- 15% to 75% depending on design library parameters
- >70% library coverage for designs at all plexities

Parallel edit limitations:

- insertions: up to ~60 bp
- deletions: up to ~75 bp
- swaps: up to ~60 bp

XENOARRAY™ BY XENOMICS

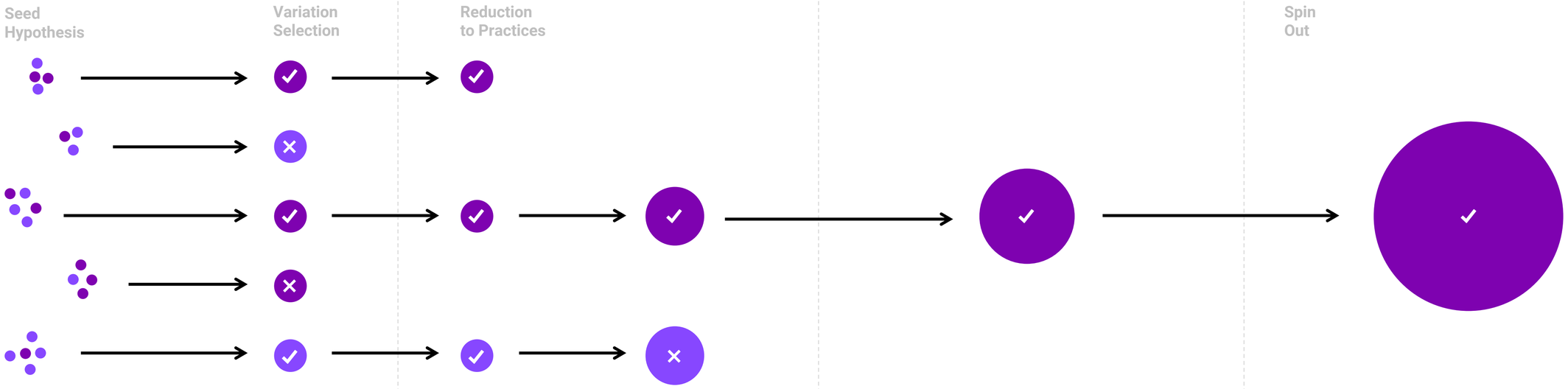
GENE KNOCK-INS: ADDING GENES, ENZYMES AND PATHWAYS

Side-by-side parallel edits:

- Generates up to 160 quadrillion unique combinations for gene editing for next generation strain engineering
- Insertion up to ~8,000 bp
- Adjust between 1 to 1.6[17] unique combinations of possible transcriptional units with unique promoters, genes, and terminators
- 1 to 8 unique genes

1. www.inscripta.com/applications

OUR HYPOTHESIS-DRIVEN APPROACH



PHASE 1

Pioneering Design

Identify a meaningful problem

Theorize a specific solution

PHASE 2

Iterative Prototyping

Apply the design, build, test, learn model

Secure defensible IP

PHASE 3

SpinCo

Form internally managed SpinCo

Early offtake agreements

PHASE 4

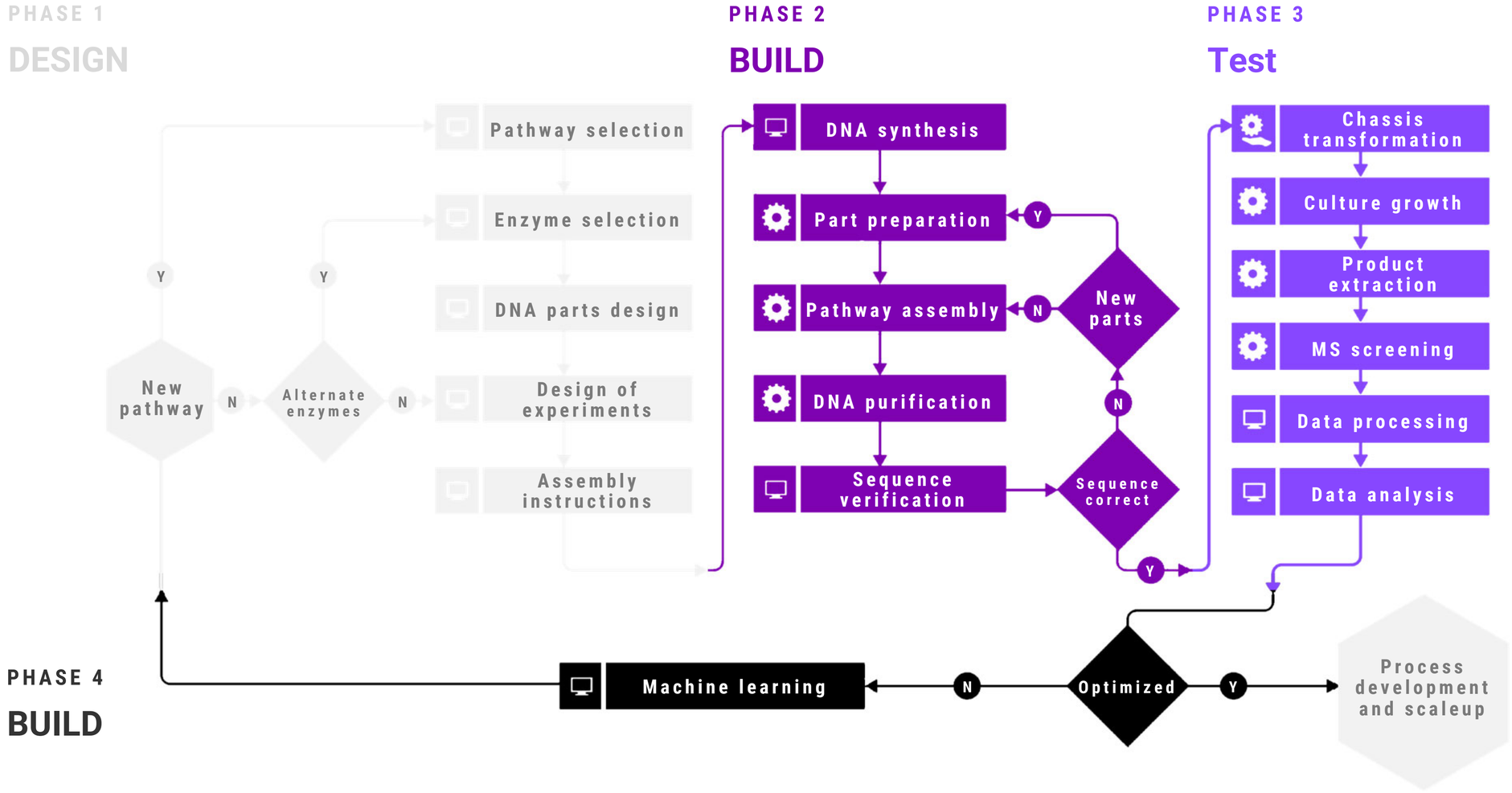
GrowthCo

Identify team to manage and operate SpinCo

Recruit CEO

Growth Support and Plans

MACHINE LEARNING OPTIMIZATION

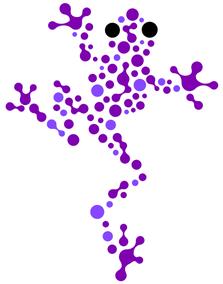


(Carbonell et al., 2018)

INDUSTRY PEERS

Company	Est. Value
Amyris, Inc. (AMRS)	$200M
CB Therapeutics (Private)	$150M
Ginkgo Bioworks Inc. (Private)	$1B
IDT	$1.7B
GW Pharma (GWPH)	$4.5B
Flagship Pioneering (including spin-cos)	$30B
Twist Bioscience	$850M
Inscripta	$1B
Zymergen	$1B

XENOMICS TIME LINE



- $3- $5 million
- 3,000 unique strains with proven labs for CBGA, CBDA, and THCA
- Identify **leasing opportunities** for capital equipment (Berkley Lights) that will significantly speed up the science by 5x
- Valuation once above achieved **estimated at $200 million**

0 Days

- **Commercialize** in X square feet using Xm3 fermentation tanks to produce X kg's capacity of isolate per annum
- Cannabinoid production financing
- Move from Letter of Intent stage to definitive agreements with offtake partners
- **Option 1** or **Option 2***

180 Days

- Commercialization of cannabinoids
- **Cash flow positive**

365+ Days

180 DAYS - OPTION 1:

- $15 - $20 million
- THC/CBD production license
- Capital requirements – acquire land, building, fermentation tanks etc.
- Expected maximum dilution on capital raise = 10%

180 DAYS - OPTION 2:

- $5 - $10 million
- Identify strategic partner in the cannabis space to provide licensing, land and building
- Capital requirements include fermentation tanks and other equipment.
- Expected maximum dilution on capital raise = 5%

MILESTONES TO DATE

Milestones achieved to date include a rare balance between rapid growth, scientific achievements, and IP development that center on generating investor value.

DEC 2018

INITIAL CONCEPT

David sparked Xenomics initial concept of biosynthesizing compounds with microorganisms.

JAN 2019

TEAM FORMATION

Xenomics was spearheaded by researchers trained at Harvard, MIT and Mayo Clinic.

APR 2019

SEED FUNDING

International Cannabis Corp provided a seed round of $1.2M (USD) which was supported by others at High Standard Capital, Latent Capital, and Sam Ventures.

JUL 2019

BIOSYNTHESIS OF CBGA

Known as the gateway to all cannabinoids, our team biosynthesized cannabigerolic acid (CBGA) from a glucose-based media.

JUL 2019

RECRUITED ALEXANDROS MAKRIYANNIS, PhD

Throughout his academic career, Dr. Makriyannis has secured over $50 mm in NIH grants and authored over 400 published papers on endocannabinoid research.

LEADERSHIP TEAM

DAVID PREINER
CEO, FOUNDER

- Harvard University (Ext. BLA candidate) - Biology, Engineering Sciences, Nanotechnology
- Boston Children's Hospital, State of MN

JOHN HARROLD, PhD
COO, CO-FOUNDER

- MIT - Instructor Material Science & Engineering, Fellow
- Harvard University - Physics Postdoc
- Rutgers - PhD. B.S. B.A. Chemical Physics, Biochemistry
- Current MIT Instructor, led 30 person lab, 4 startups, 2 funded by NSF, 2 patents, 6 publications

RYAN HUBBARD, MD
CMO, CO-FOUNDER

- Mayo School of Graduate Medical Education - Resident Physician in Physical Medicine and Rehabilitation, Resident Internal Medicine
- Georgetown University, M.D
- Former Medical Instructor at Mayo Clinic (2016-2017), 25+ Publications, Posters, and Oral Presentations, Sports Team Physician

SISI (SOPHIE) NI, PhD
CPO, CO-FOUNDER

- MIT -PhD. Material Science, Engineering, Energy Applications
- Nanyang Technological University - Engineering
- Yamada, USA
- Forbes 30 under 30, managed US$83M P&L to deliver 43% growth in 3yrs, startup co-founder

NONA TIAN, PhD
SCIENCE ADVISOR

- Xiamen University - PhD Cell and Molecular Biology, B.S. Biotechnology
- Xiamen Huanyu - Tianray Biotechnology
- Awarded US$1M in research grants for E. coli engineering projects, startup co-founder

ALEX MAKRIYANNIS, PhD
ADVISOR, BIOTII

- Northeastern University, Director of Drug Discovery
- 400+ published papers on molecule and drug discovery
- 1st author on 37 US filed patents
- Secured non-dilutable funding in the form of US$50 million in research grants awarded by the U.S. National Institute of Health

LEADERSHIP TEAM CONTINUED

DAN KRIZNIC, CPA, CA
CFO

- Created Over $1 Billion in Enterprise Value
- $700 Million in Exits
- $243 Million in M&A Transactions
- $175 Million in Financings
- 9 Public Listings

OLIVIER ROUSSY-NEWTON
VP BUSINESS DEVELOPMENT

- Founder of Hive Blockchain and Latent Capital
- Raised Over 400M in the Past 2 Years

NATASHA COLLINS, CPA, CA
VP FINANCE

- Over a Decade of Experience Advising Public and Private Companies
- $180MM of M&A Transactions
- 2 Public Listings

DAVID WOOD, PhD, LLB
ADVISOR

- Partner at Borden Ladner Gervais LLP, PhD in Biochemistry, Lawyer and Patent Agent
- Co-chair of the BLG Cannabis Industry Focus Group
- Legal practice focuses on intellectual property and regulatory law – regulatory practice entirely focused on cannabis (including hemp) and restricted drugs (psilocybin, MDMA, LSD and others)

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