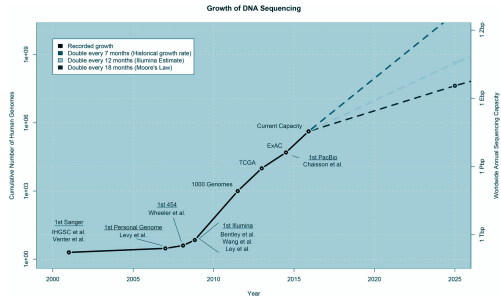# AIomiX

Artificial Intelligence Enabled Multi-Granular
Integrative
Omics
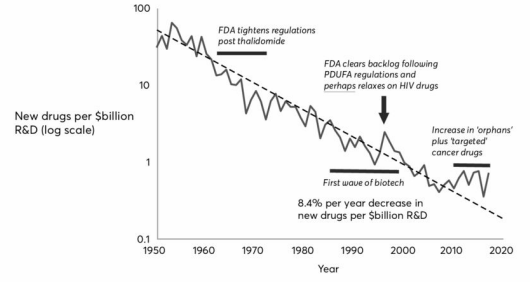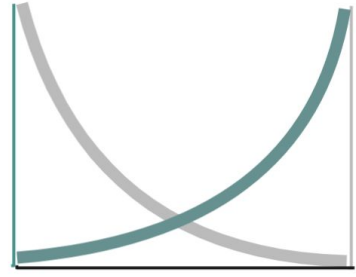
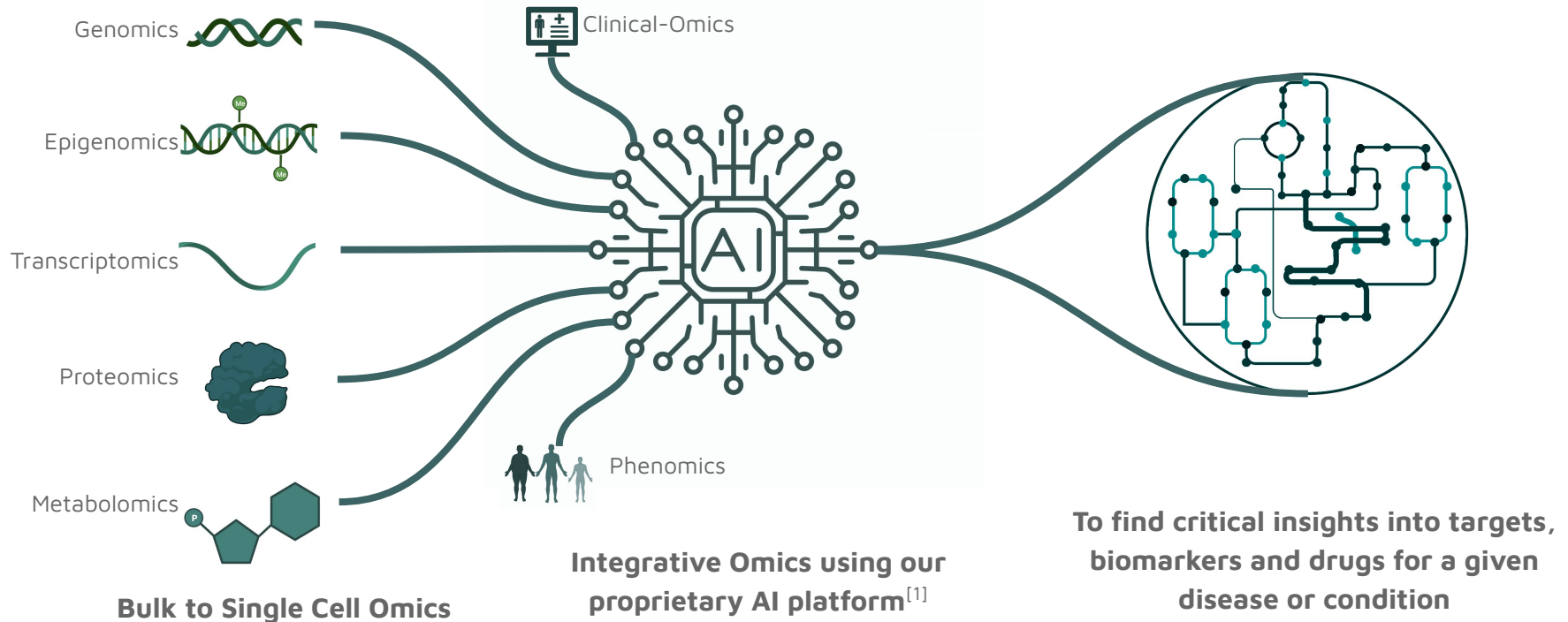Drug Discovery Platform

The Problem – More Biological Data but Fewer Novel Drugs

The bottleneck is not data generation any longer rather it is the lack of insightful analysis of multi-resolution and multi-omic data

Solution AIOmiX: An AI Enabled Multi-Granular Integrative Omics Platform for Drug Discovery

Genomics

Epigenomics

Transcriptomics

Proteomics

Metabolomics

Clinical-Omics

Phenomics

AI

Bulk to Single Cell Omics

Integrative Omics using our proprietary AI platform[1]

To find critical insights into targets, biomarkers and drugs for a given disease or condition

Market - 10 Billion Dollar Industry By 2030

AI in Drug Discovery - Market Size

■ Market size (in billions) ━ 36.1% CAGR
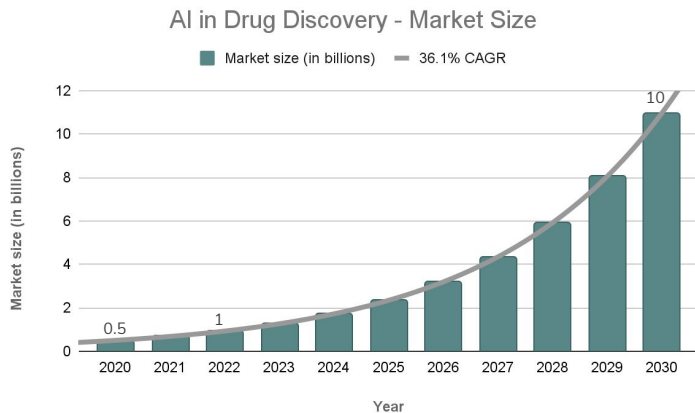
The total market is expected to grow at
36.1% CAGR from **1 billion in 2022** and
10 billion by 2030[2]

80%

50%

0.2%

Total Market Size 2022

~$1 billion

Served

US, Europe & China

~$0.8 billion

Target

Big Pharma & CROs

~$0.5 billion

Revenue Potential

2-3 SAAS contracts*

~$1 million ARR

Revenue Potential By 2030

10% of 2030 Target Market

~$500 million ARR
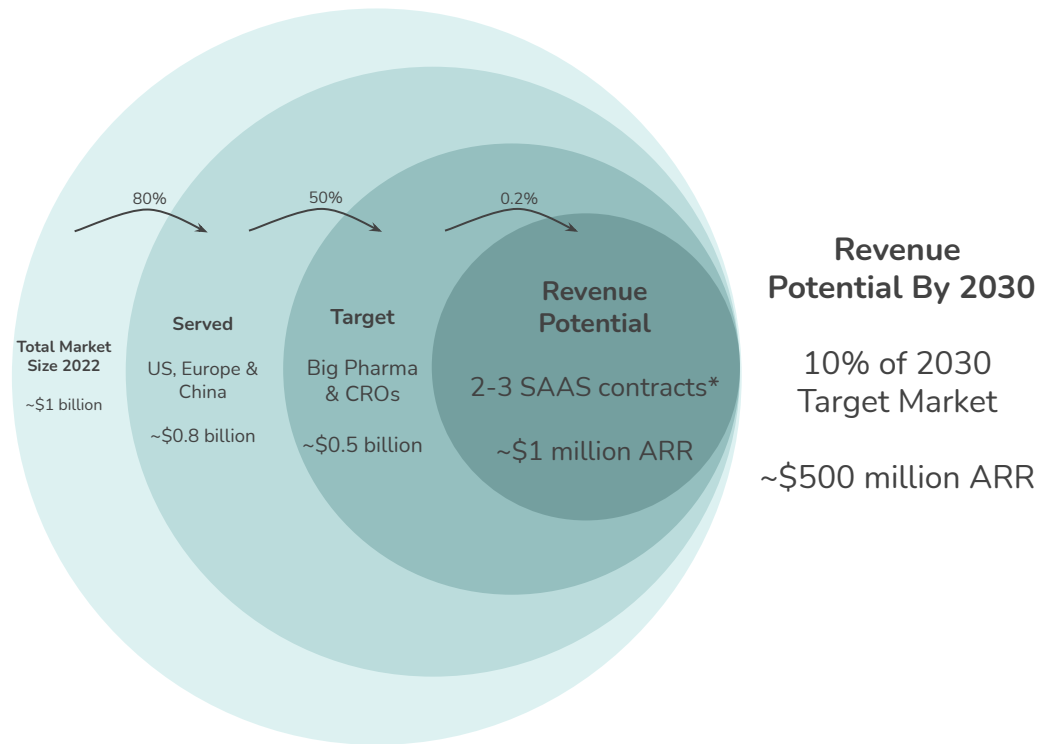
Based on total market size estimates for 2022 and 2030

*Typical SaaS contracts in this domain go from anywhere between $100K to $1 million

Competitive Landscape

**AI for Multi-Granular
(Whole body, Organular, Tissue & Single-Cell)
Integrative Omics for Drug Discovery**
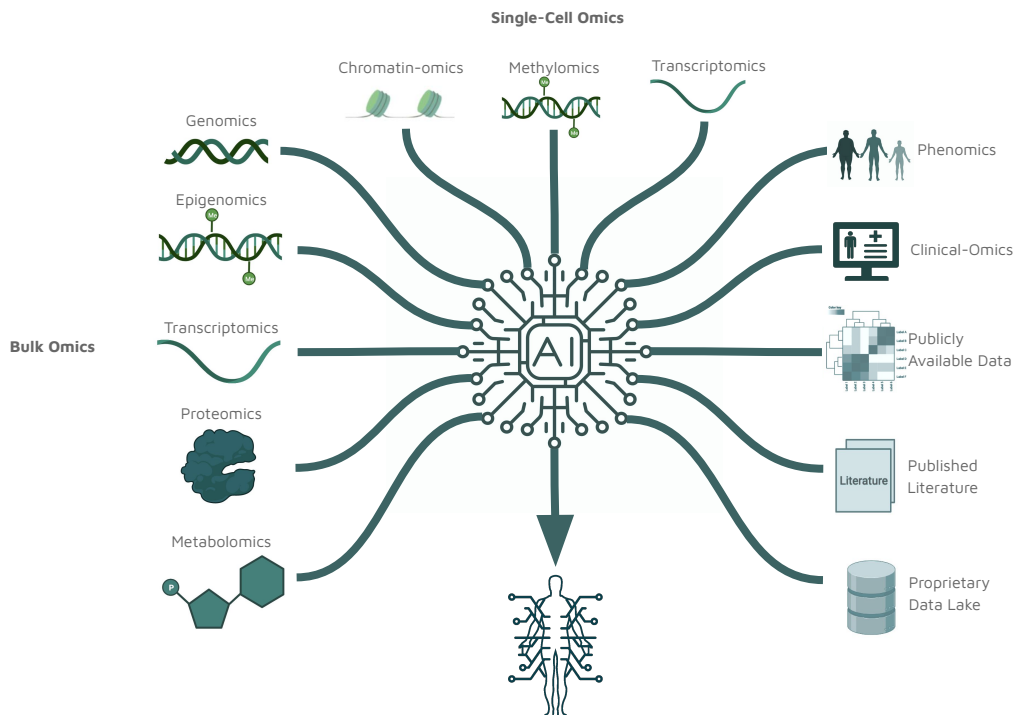
AI for **Bulk Integrative Omics**
for Drug Discovery

Artificial Intelligence
for Drug Discovery

Data Science
for Drug
Discovery

precisionlife
driving precision medicine

10x GENOMICS

IBM

Atomwise

deep genomics

Google

Microsoft

flatiron

gsk

lucidata

NOVARTIS
PHARMACEUTICALS

Differentiators

Single-Cell Omics

Chromatin-omics Methylomics Transcriptomics

Genomics

Phenomics

Epigenomics

Clinical-Omics

Bulk Omics

Transcriptomics

Publicly Available Data

Proteomics

Published Literature

Metabolomics

Proprietary Data Lake

Insights into potential targets, compounds for targets, repurposed drugs, biomarkers and clinical outcomes using our proprietary AI enabled platform

1. Holistic Drug Discovery
   Integrating knowledge from traditional medicine to omics datasets to smarter clinical trials with the goal to discover novel, first-class therapeutics cheaper and faster

2. Multi-Granular Integration
   Integrating data all the way from Whole Body down to Single Cells in one platform

3. Proprietary AI Algorithms
   Built by experts, tested by drug discovery stalwarts

4. Proprietary Data
   Agglomerated data from 1000s of experiments and studies to find novel insights

Revenue Plan - Three Pronged Approach

For profit SaaS contracts with Big Pharma and CROs

➔ Annual contracts worth $100K-1M

➔ High security platform with options of local deployment at an extra charge

➔ Expect doubling of revenue year on year through this source

➔ Expected to hit ARR of $450M by 2030

Revenue through SaaS contracts in Millions of Dollars
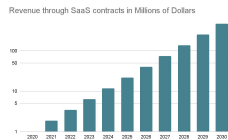
Free offering for academia and start-ups up to 3 analysis per year

➔ Pay per analysis after first 3 analyses in a year priced at $1000 per analysis

➔ No local deployment available. Data uploaded will be used for improving tools and building proprietary data lake

➔ Small source of revenue but huge source for generating buzz and testing as well as improving the platform

Contracts for using Proprietary Data Lake

➔ Expected launch by 2024

➔ Will be offered to pharma and academia at a premium cost to integrate into their current platform or use independently

➔ Pricing around this is yet to be determined based on value created

Team- 50 years of combined biomedical expertise

Aarthi Venkat
PhD Student
Computational Biology

Comp. Bio. & Software Expert

Experience working at
Google Brain

Dennis Shung
MD-PhD
Department of Medicine

Clinical Informatics Expert

Director of Digital Health,
Yale School of Medicine

Manik Kuchroo
MD-PhD Student in
Neuroscience & Comp. Bio.

Omics Informatics Expert

Past experience working in
Big Pharma Omics analysis

Raghav Sehgal
PhD Student
Computational Biology

Product and Business Expert

Led product development at
biomedical data science start-up

Smita Krishnaswamy
Associate Professor
Comp. Sci. Department

ML and AI Expert

15 years of exp. building AI
tools for biomedical data

Status - Prototyping and Testing

Drug Discovery

Target Discovery

Discovered CCK as a potential target in pancreatic cancer using single-cell RNAseq.

Published in

Cell

Target Validation

Validated metabolic target as well as regulatory relationships in Triple Negative Breast Cancer

Sponsored by

Pfizer

Biomarker Discovery

Discovered and built novel epigenetic biomarker for aging in 9 different biological systems

To be licensed by

ELYSIUM

Drug Repurposing

Built Drug Metabolism Database to find undiscovered and on and off target effects in 500 drugs for the purpose of drug repurposing

Sponsored by

SCIEX
The Power of Precision

Precision Medicine

Discovered T cell types associated with extended recovery for patients hospitalized for COVID-19 infection

To be published in

nature biotechnology

What Are We Asking Funding For?

Proof of concept exists, we now want to build a Minimum Viable Product for Academicians to test

Asking $100K to setup Software Dev team

- 1 Senior Software engineer - 1 x $25K
- 3 Junior Software engineers - 3 x $15K
- 1 Designer - 1 x $15K
- Equipment, computing resources and miscellaneous - 15K

We plan on building the product out of South Asia given our Asian connections as well as abundance of economical tech workforce

At this point we wish to test and sell the product through our own network