Unleashing the Power of Directus

Revolutionizing Data Management for Startups

Michael Salaverry @ Quris.ai

Quris.ai

Did I start screen recording?

Let’s check…

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Who am I?

Former Wix, Axonize, Intuit - since 2016

Follow me on github.com/barakplasma

I'm Michael Salaverry IRL, but **barakplasma** on:

- Twitter
- Dev.to
- linkedin.com/in/michaelsalaverry/

Other open-source things I published to github:

Rust on Android cron job for rain alerts from IMS, Queuing software with WS/Redis, Iron Dome game, HackerNews TTS in Vue, contributions to Go RSS reader w/GPT summarization, and various bug fixes for upstream open source

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Where do I work; Quris-AI

TheMarker Labels | AI 2023

פלטפורמת חיזוי מבוססת AI של חברת Quris מובילה מהפכה בתהליכי פיתוח התרופות

"מטופל על שבב" – פיתוח פורץ דרך של חברת Quris, מייצג את הדור החדש של הטכנולוגיה הרפואית. זאת באמצעות מידע מדויק מבוסס בינה מלאכותית, הנאסף מאיברים המדמים את גוף האדם, ומספק נתונים אמינים לפיתוח תרופות החוסכים את עלויות הניסויים הקליניים. "מדובר במהפכה שמשנה באופן דרמטי את היכולת לפתח ולהתאים תרופות באופן אישי", אומר ד"ר צחון בנטואיץ, מייסד ומנכ"ל החברה

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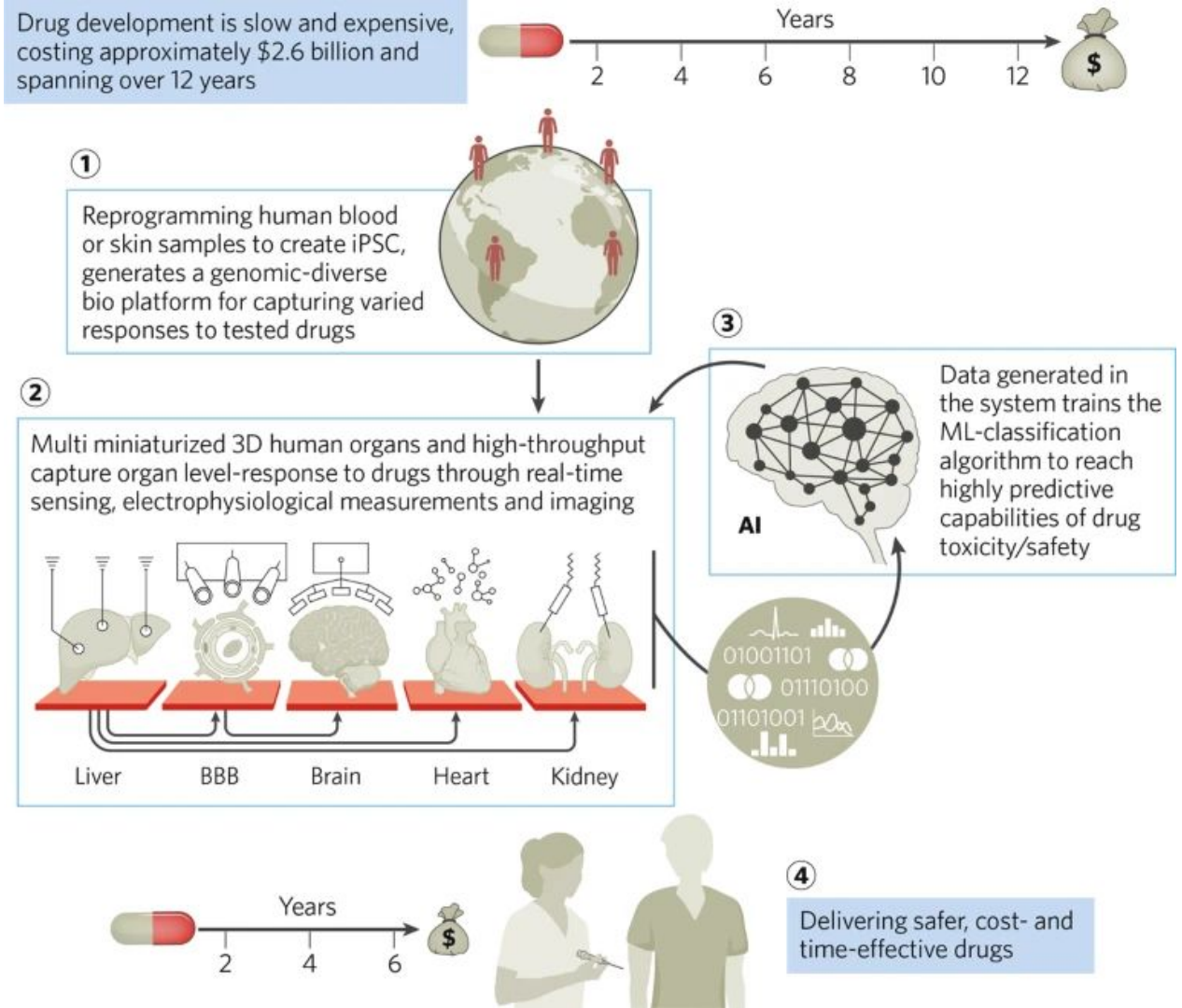
LAS VEGAS


Drug development is slow and expensive, costing approximately $2.6 billion and spanning over 12 years
Years
2
4
6
8
10
12
$
1
Reprogramming human blood or skin samples to create iPSC, generates a genomic-diverse bio platform for capturing varied responses to tested drugs
2
Multi miniaturized 3D human organs and high-throughput capture organ level-response to drugs through real-time sensing, electrophysiological measurements and imaging
Liver
BBB
Brain
Heart
Kidney
3
AI
Data generated in the system trains the ML-classification algorithm to reach highly predictive capabilities of drug toxicity/safety
01001101
01110100
01101001
Years
2
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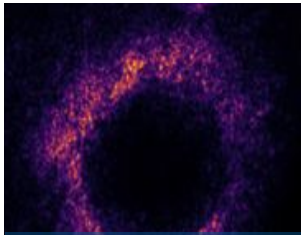
4
Delivering safer, cost- and time-effective drugs

1000`s
of known drugs

TEST
on patient-on-chip

GENERATE
millions of interactions



TRAIN
the AI

PREDICT
safety of a new drug

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2.5M

cell-hours
real-time data

14M

cell
images

6M

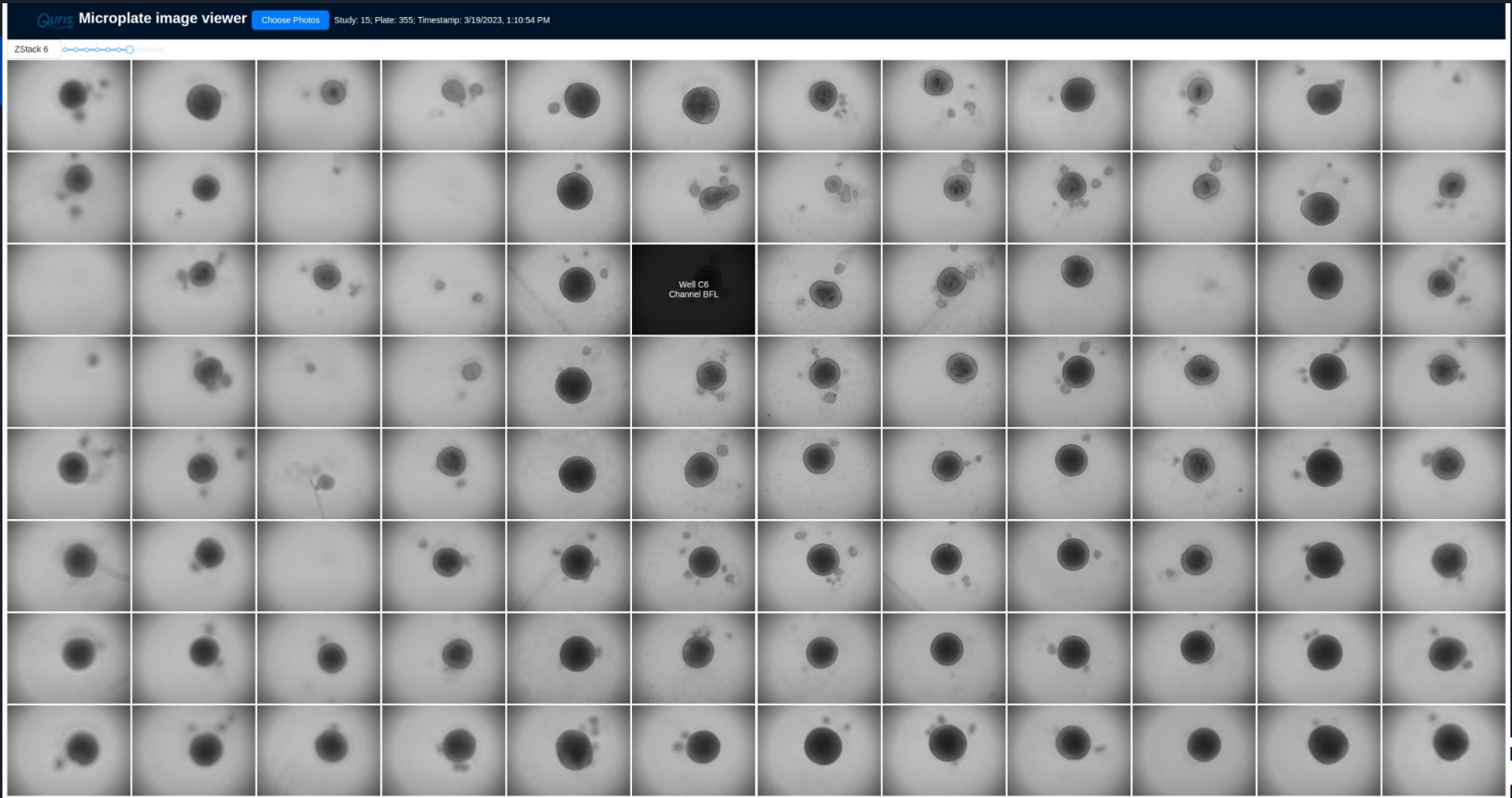
Metabolite
nano-sensor
data-points

150M

Model
parameters

In ML network


יציאה
Authorized
Personnel Only


Microplate image viewer
Choose Photos
Study: 15; Plate: 355; Timestamp: 3/19/2023, 1:10:54 PM
ZStack 6
Well C6
Channel BFL

What were the team's needs vs constraints?

Needs

- Frontend - CRUD on experiments
- Backend - for frontend with types
- Database management
- AuthN / AuthZ
- Open-source software

Constraints

- Team focused on robotics
- On-premises server required
- Simple to learn for generalists

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What were our alternatives?

Low code tools

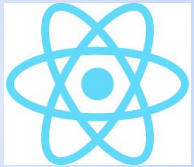
ToolJet

Node-RED

supabase

Retool

Custom Stack



NEXT.JS

django

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What is Directus?

What is the unique value proposition for Directus?

- Powerful admin panel in Vue.js - easy to learn
- Excellent plugin experience
- Simple deployment on top of Postgres
- Node.js backend for custom endpoints
- Type-friendly JavaScript SDK
- Supports LDAP/OIDC AuthN/AuthZ
- Handles files and images

How was the getting started experience?

Live Demo Time

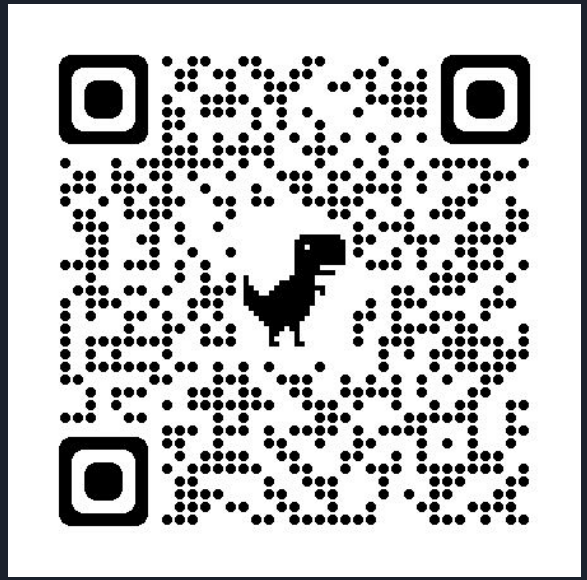
Click here to start a Github Codespace

- Install/Run with docker compose
- Show a community plugin for Directus
- Create a new Vue plugin for Directus
- Show the Directus SDK

Conclusion - Thanks for your attention!

Now is the time for comments, more questions, etc

github.com/barakplasma



We’re hiring a Senior Data Scientist

https://www.comeet.com/jobs/quris/17.000/data-scientist/E2.935

Talk to me if you are looking for Junior Developers - Appleseeds

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Resources:

Code available at
https://github.com/barakplasma/raffler

Slides available at Unleashing the Power of Directus

Photos and other files on Google Drive

Live coding video available at
https://youtu.be/RXuW9Ro34I8