

DIGITALIZED CLINICAL TRIALS AN ERA OF ANTI-CRO (CONTRACTUAL RESEARCH ORGANIZATIONS)

CANDIDATE NUMBER (HZTG2)

MSc DIGITAL HEALTH AND ENTREPRENEURSHIP

GLOBAL BUSINESS SCHOOL FOR HEALTH

UNIVERSITY COLLEGE LONDON

MODULE: GBSH0020- DIGITAL HEALTH START-UPS



WHAT DOES WORKING WITH CONTRACTUAL RESEARCH ORGANISATIONS MEAN?



Time

new drug takes roughly **14 years** to reach the market, and failure can happen at any point along the way



Recruitment

86% of clinical trials do not reach recruitment targets within their specified time periods



Time is Money!

Companies bare the loss of **\$600,000** to as high as **\$8 million** per day with each day of delay



Cost

The total capitalized cost of Discovery and Development to bring one new drug to market is **\$1.8 billion**.
>75% of the costs of developing new treatments are spent on the clinical trials

wasting time & money--> failure of trials

PROMISES TO THE CUSTOMERS



Expert support in proposal building



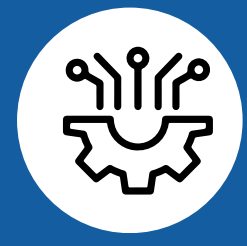
E- Recruitment of participants



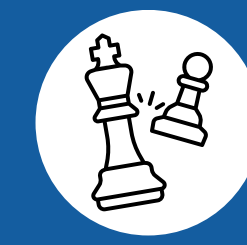
Remote Consent



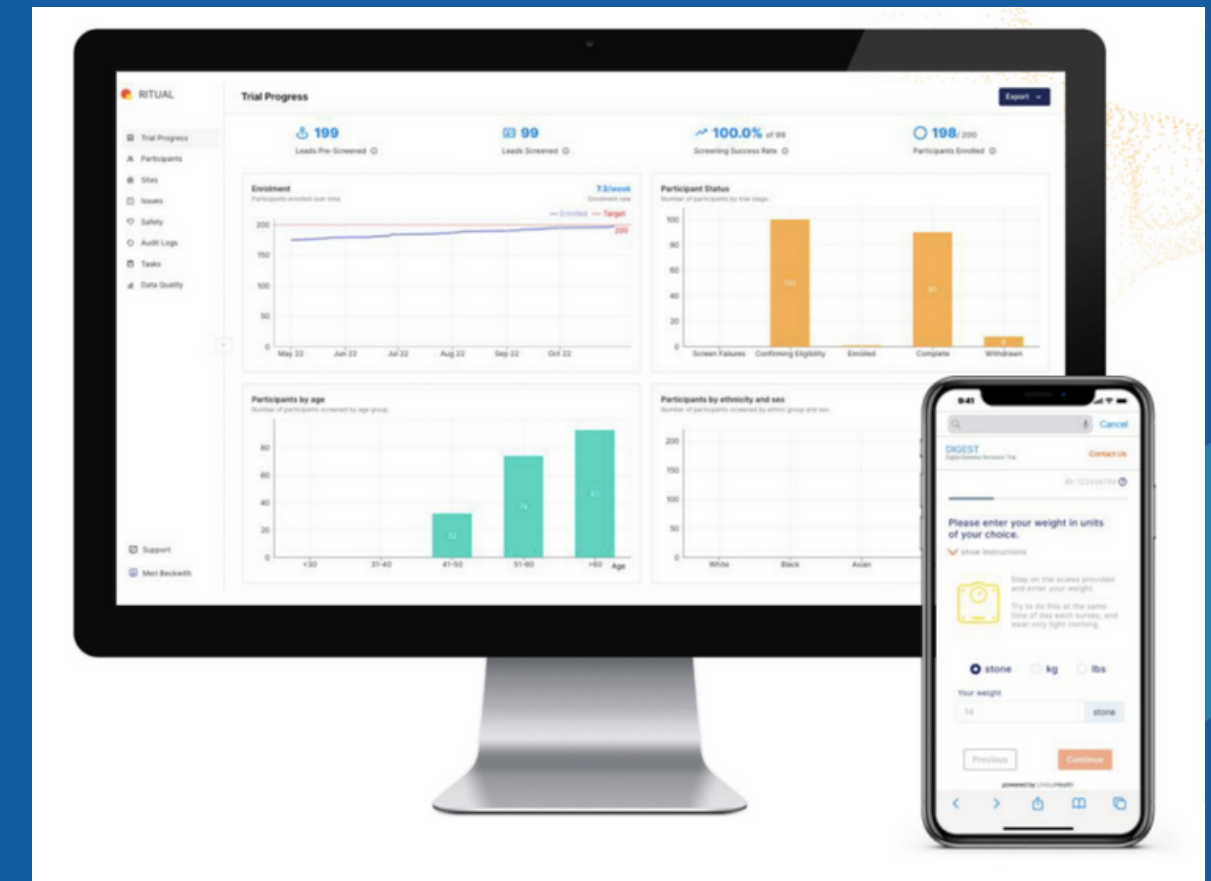
Real time E-Tracking and Monitoring



predict trial outcome via Machine Learning



differentiating from Competitors



SECRET LIES BEHIND: CITRUS

~~burdensome consent~~

CitrusClinical

2--3x FASTER

- Remote consent
- Electronic Data Capture
- Dedicated trial-specific database
- Easy database import/export

- Monitoring alerts surfaced, investigated and actioned
- Real time tracking of screening, enrolment, site initiation and study progress in a single dashboard
- Audit logs capture all trial activity

CitrusSentry

100% ON TIME

- Access to >20m patients
- Boost patient reach with social media campaigns
- Reach and engage diverse, representative patient populations
- Dedicated study website to educate and onboard patients

~~stressing about participants' diversity, bias, engagement, education, withdraw--> delays~~

CitrusRecruit

INSTANT

- Full protocol design support
- Feasibility searches conducted on 5m electronic health records
- Machine learning models trained on 620k clinical trials predict likely trial outcome
- Suggestions based on prior successful trials
- Research published in Nature Scientific Reports

CitusPilot







TRANSPARENCY

~~stressing about the results and failure in studies, expert guidance, publishing,~~







- Build evidence for health and marketing claims
- Differentiate your product from competitors
- De-risk your next clinical trial
- Publish your findings

~~stressing about competitors, market fit, claims, and de-risking protocols~~

CitusStudio

		
 Therapeutic Area: Infectious disease	 Therapeutic Area: Mental Health	 Therapeutic Area: Pre-diabetes
Description: <ul style="list-style-type: none"> At-home testing for STDs Screening, ePRO and remote testing 	Description: <ul style="list-style-type: none"> Drug trial 30 adults with previously treated depression 	Description: <ul style="list-style-type: none"> EFSA Health Claim trial 60 participants
Results: <1 month ← Completed recruitment	Results: >200 ← Leads shared in <1 month	Results: 5x ← Faster trial setup than competing quotes

INSIGHTS FROM PARTNERS' SUCCESS

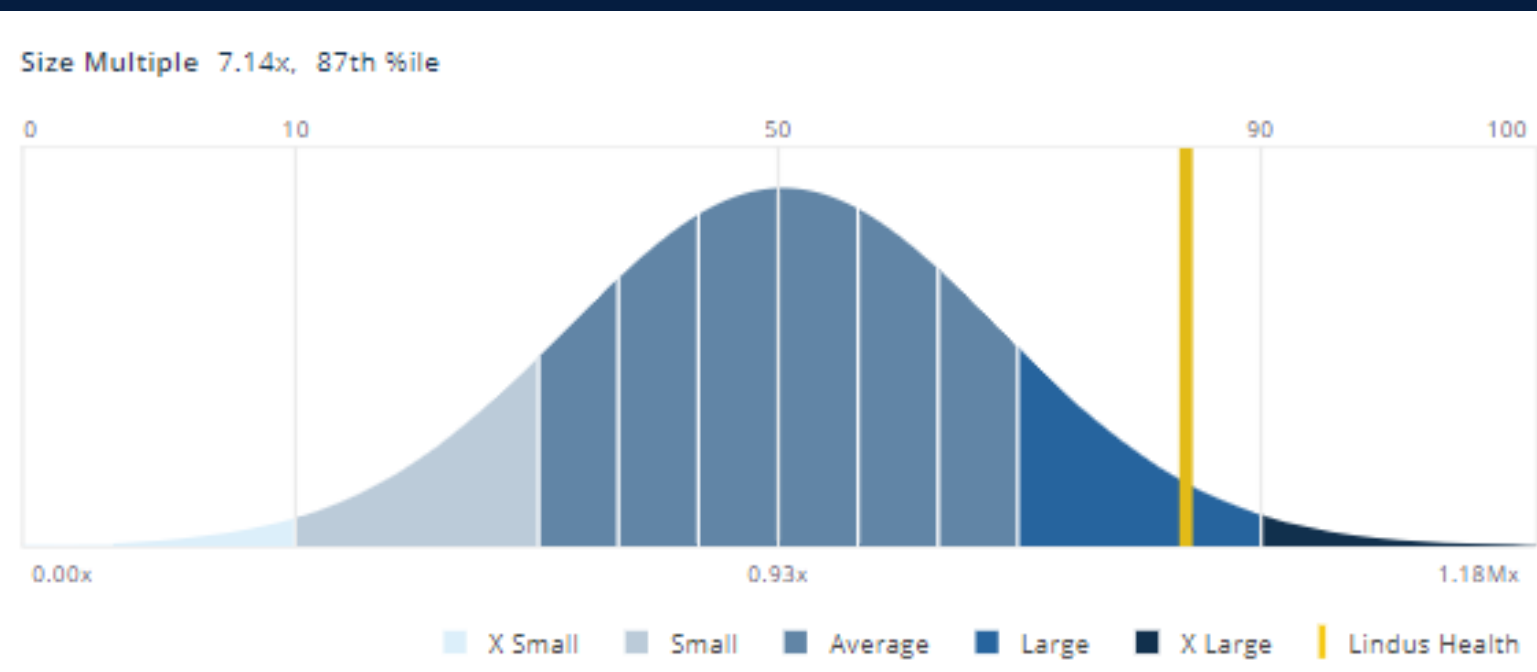
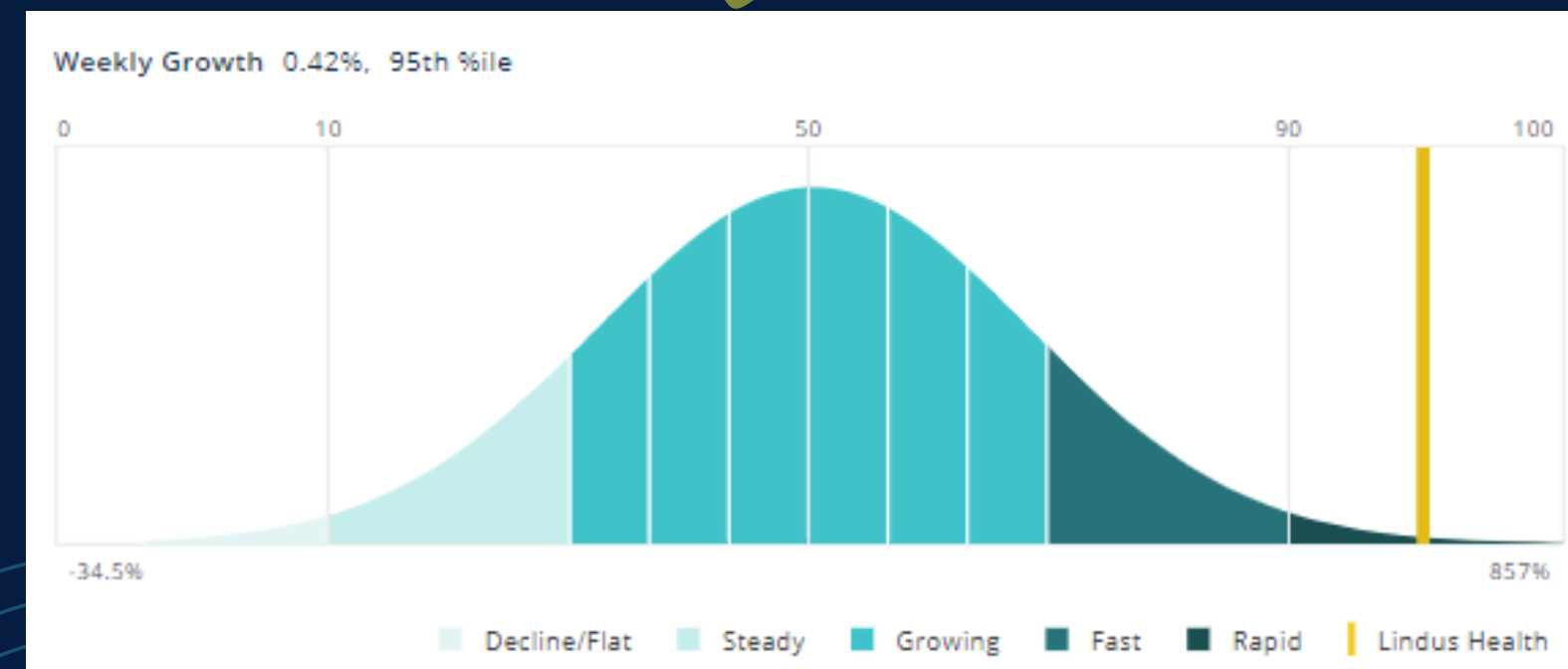
			
 Therapeutic Area: Pre-diabetes	 Therapeutic Area: Psychedelics	 Therapeutic Area: Saliva Direct	 Therapeutic Area: Type 2 Diabetes
Description: <ul style="list-style-type: none"> Pivotal trial Three-arm trial evaluating digital intervention 	Description: <ul style="list-style-type: none"> Studying the effects of ketamine in healthy volunteers 70 participants 	Description: <ul style="list-style-type: none"> Saliva test for COVID-19 Global research 	Description: <ul style="list-style-type: none"> Prospective RCT Fully decentralised 100 participants
Results: 36x ← Recruitment rate uplift	Results: 100% ← Enrolment in <1 year	Results: >1000 ← Leads in <2 months	Results: >3x ← Faster than competing providers

Comparing 4263 healthcare technology systems globally, Lindus has a success probability of 68%, following in the category of Upper Middle, much higher than the average success probability of 53%

Comparing 4263 healthcare technology systems globally, Lindus has Opportunity score of 73 thus attaining 77th percentile, which is much above the average score of 49



Insights from Pitchbook



REFERENCES:

1. <https://my.pitchbook.com/profile/471863-89/company/profile#similar-companies>
2. <https://www.lindushealth.com/platform>
3. Lindus Pitch Deck
4. <https://pharmafile.com/features/clinical-trials-and-their-patients-rising-costs-and-how-stem-loss/>
5. Huang, G.D., Bull, J., Johnston McKee, K., Mahon, E., Harper, B. and Roberts, J.N. (2018). Clinical trials recruitment planning: A proposed framework from the Clinical Trials Transformation Initiative. *Contemporary Clinical Trials*, 66, pp.74–79. doi:<https://doi.org/10.1016/j.cct.2018.01.003>.

Thank You

