About Wipro Clinical Feasibility and Biomarker Hub™

Around 80% of clinical trials fail to meet enrollment timelines, 85% of trials fail to retain enough patients and 50% of research sites enroll one or no patients[1]. With the cost of drug development for a single drug estimated between $2 - $3 billion[2], delays and inefficiencies in clinical trial recruitment can be extremely costly – adding up to $600k - $8 million[3] per day of delay.

Using a strategic, data-driven approach at the onset of planning and designing a clinical trial can help identify the right patients, sites, and investigators to engage and reduce the burden of uncertainty and speed up conduct of the trial.

Biomarkers can be used to effectively identify the right patient populations, monitor therapeutic response, and identify side effects of a particular treatment for a particular patient. Designing a study where the eligibility criteria is optimally matched and geo-targeted to potential trial participants can lead to better outcomes and faster enrollment.

Wipro's Biomarker Hub™ is designed to be a centralized nucleus to drive the collection and AI/ML driven analysis of biomarker data for the purpose of conducting clinical research and improve patient outcomes. The Biomarker Hub leverages de-identified data from one of the largest global patients cancer gene panels (TarGT Indiegene) to help geo-target the right patients for the right studies. Wipro through it's partnership with global diagnostic labs can further enrich the data for targeted outcomes for our life sciences clients.

In addition to biomarkers, Wipro's Clinical Feasibility module further geo-targets sites, investigators and patients with a focus on increasing diversity and outreach to underrepresented populations. The feasibility platform distills publicly available, purchased, and sponsor-specific data to provide key insights on site and investigator capabilities and performance. Furthermore, it overlays geographic and census data to identify population density and racial and ethnic breakdown in areas of interest. The combined Insights from the Clinical Feasibility module and the Biomarker Hub will provide a more comprehensive view and add strategic foresight to trial design and planning.

For sponsors, using this key technology and data-rich platform can improve overall clinical trial process from protocol design to enrollment and medical management of patients.

Sources:

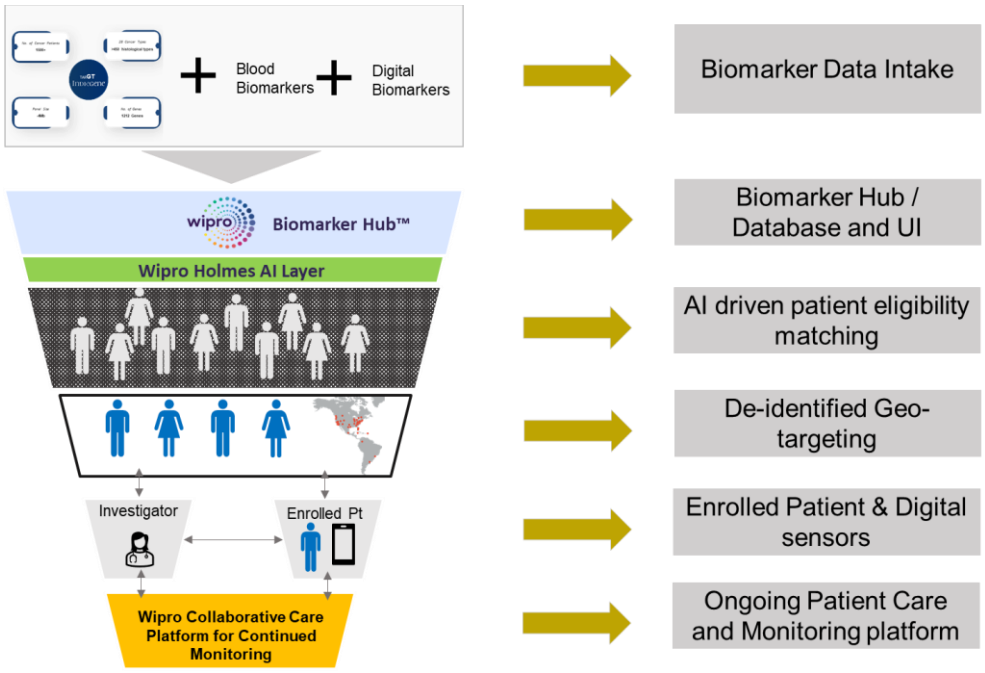
[1] https://www.clinicalleader.com/doc/considerations-for-improving-patient-0001

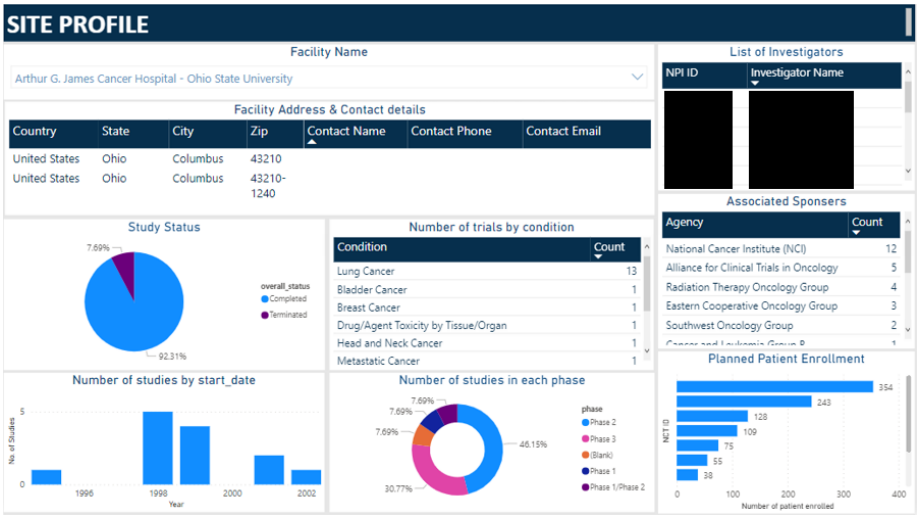
[2] https://publichealth.jhu.edu/2018/cost-of-clinical-trials-for-new-drug-FDA-approval-are-fraction-of-total-tab#:~:text=The%20%2419%20million%20median%20figure,between%20%242%20to%20%243%20billion.

[3] https://www.businesswire.com/news/home/20220113005740/en/New-Study-Decentralized-Clinical-Trials-Can-Achieve-Net-Financial-Benefits-of-5X-to-14X-Due-to-Reduced-Trial-Timelines-and-Other-Factors

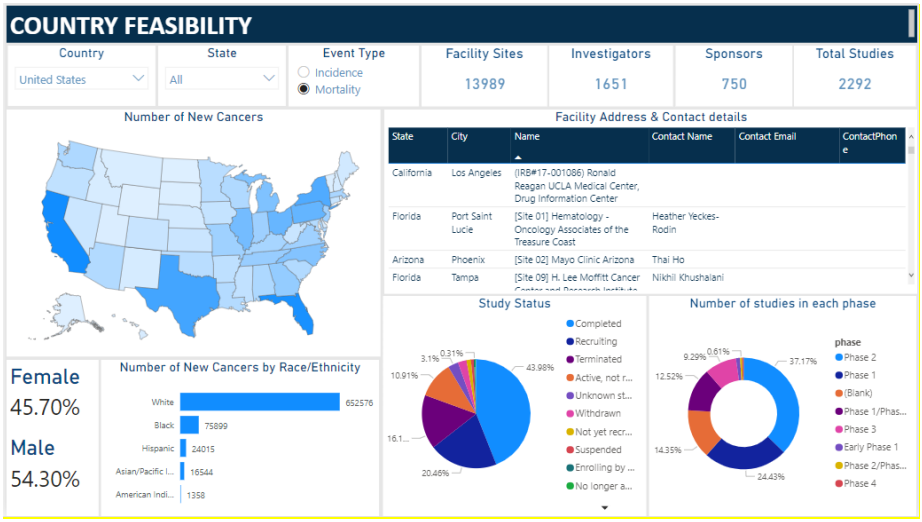
At a glance:


Path 1 – Tissue Biomarkers
Path 2 – Blood Biomarkers
Path 3 – Digital Biomarkers
TarGT Indigene Panel – largest tumor gene panel
Identify the type of Biomarkers needed for the trial
Collect Biomarker data
Biomarker Detection Algorithm for Trials
Leverage Wipro's largest tumor gene panel to create a biomarker profile for each Oncology Trial's I/E criteria to:
1) Geotarget patients who match I/E profile in Biomarker databases
2) Leverage identified patient cohort as a resource to develop future trials
Multi-Cancer Detection
Partner and integrate with Early Multi-Cancer Detection labs to supply diagnosed patients with Clinical Trial options
Biomarker Associations
Identify associated Biomarkers from devices in the market and use predictive analytics to determine patterns or associations to Clinical Trials.


Blood Biomarkers
Digital Biomarkers
wipro
Biomarker Hub™
Wipro Holmes AI Layer
Investigator
Enrolled Pt
Wipro Collaborative Care Platform for Continued Monitoring
Biomarker Data Intake
Biomarker Hub / Database and UI
AI driven patient eligibility matching
De-identified Geo-targeting
Enrolled Patient & Digital sensors
Ongoing Patient Care and Monitoring platform


SITE PROFILE
Facility Name
Arthur G. James Cancer Hospital - Ohio State University
Facility Address & Contact details
Country State City Zip Contact Name Contact Phone Contact Email
United States Ohio Columbus 43210
United States Ohio Columbus 43210-1240
List of Investigators
NPI ID Investigator Name
Associated Sponsers
Agency Count
National Cancer Institute (NCI) 12
Alliance for Clinical Trials in Oncology 5
Radiation Therapy Oncology Group 4
Eastern Cooperative Oncology Group 3
Southwest Oncology Group 2
Study Status
7.69%
92.31%
overall_status
Completed
Terminated
Number of trials by condition
Condition Count
Lung Cancer 13
Bladder Cancer 1
Breast Cancer 1
Drug/Agent Toxicity by Tissue/Organ 1
Head and Neck Cancer 1
Metastatic Cancer 1
Planned Patient Enrollment
354
243
128
109
75
55
38
NCT ID
0 100 200 300 400
Number of patient enrolled
Number of studies by start_date
No. of Studies
5
0
1996 1998 2000 2002
Year
Number of studies in each phase
7.69%
7.69%
7.69%
46.15%
30.77%
phase
Phase 2
Phase 3
(Blank)
Phase 1
Phase 1/Phase 2


INVESTIGATOR PERFORMANCE-2
Name
NPI ID
List of studies
NCT ID Official Title
Phase I Dose Escalation Study of Carboplatin, Pemetre Exemestane in Post-menopausal Women With Metasta squamous NSCLC
Phase 1b Dose Escalation and Dose Expansion Trial of I Combination With an Approved Anti-PD-1 Inhibitor in With Advanced Non-Small Cell Lung Cancer
An Adaptive Phase III, Multicenter, Randomized, Open- Controlled Study of M7824 (Bintrafusp Alfa) Versus Pembrolizumab as a First-line Treatment in Patients Wi Expressing Advanced Non-small Cell Lung Cancer
A Randomized, Open-label, Phase II Study of Canakinu Pembrolizumab as Monotherapy or in Combination as
Number of trials by condition
Condition Count
Advanced Non Small Cell Lung Cancer 1
Metastatic Breast Cancer 1
Recurrent Non-small Cell Lung Cancer 1
Recurrent Non-Small Cell Lung Carcinoma 1
Squamous Cell Lung Cancer 1
Stage IIIA Non-Small Cell Lung Cancer 1
Total 19
Associated investigators
Name Count
2
2
2
2
2
1
1
Sponsor
Agency Count
Jonsson Comprehensive Cancer Center 7
National Cancer Institute (NCI) 7
Novartis Pharmaceuticals 3
Total 23
Payment by Sponsor
Payment
20M
10M
0M
Merck Sharp & D...
Bristol-Myers Squib...
Pfizer Inc
Eli Lilly and Company
Genentech, Inc.
Novartis Pharmace...
Boehringer Ingelhe...
Boehringer Ingelhe...
GlaxoSmithKline, LL...
Payment by Year
Payment
10M
5M
0M
2014
2016
2018
Drug Name
KEYTRUDA
AROM...
OPDIVO
TEC...
VIZ...
XA...
CYRAMZA
Z...
LUMINES...


COUNTRY FEASIBILITY
Country
United States
State
All
Event Type
Incidence
Mortality
Facility Sites
13989
Investigators
1651
Sponsors
750
Total Studies
2292
Number of New Cancers
Facility Address & Contact details
State City Name Contact Name Contact Email ContactPhone
California Los Angeles (IRB#17-001086) Ronald Reagan UCLA Medical Center, Drug Information Center
Florida Port Saint Lucie [Site 01] Hematology - Oncology Associates of the Treasure Coast Heather Yeckes-Rodin
Arizona Phoenix [Site 02] Mayo Clinic Arizona Thai Ho
Florida Tampa [Site 09] H. Lee Moffitt Cancer Nikhil Khushalani
Study Status
3.1%
0.31%
10.91%
43.98%
16.1...
20.46%
Completed
Recruiting
Terminated
Active, not r...
Unknown st...
Withdrawn
Not yet recr...
Suspended
Enrolling by ...
No longer a...
Number of studies in each phase
9.29%
0.61%
37.17%
12.52%
14.35%
24.43%
phase
Phase 2
Phase 1
(Blank)
Phase 1/Phas...
Phase 3
Early Phase 1
Phase 2/Phas...
Phase 4
Female
45.70%
Male
54.30%
Number of New Cancers by Race/Ethnicity
White 652576
Black 75899
Hispanic 24015
Asian/Pacific I... 16544
American Indi... 1358