



**TABLE OF CONTENTS
FOR
HEALTH AFFAIRS COMMITTEE**

Committee Meeting: 2/8/2017

Board Meeting: 2/9/2017
Austin, Texas

Alex M. Cranberg, Chairman
Ernest Aliseda
David J. Beck
Jeffery D. Hildebrand
Sara Martinez Tucker

	Committee Meeting	Board Meeting	Page
Convene	9:30 a.m. <i>Chairman Cranberg</i>		
1. U. T. System Board of Regents: Discussion and appropriate action regarding Consent Agenda items, if any, assigned for Committee consideration	9:30 a.m. Discussion	Action	269
2. U. T. Rio Grande Valley: Report on the U. T. Rio Grande Valley School of Medicine	9:33 a.m. Report/Discussion <i>President Bailey</i> <i>Interim Dean Steven Lieberman</i>	Not on Agenda	270
3. U. T. M. D. Anderson Cancer Center: Report on Translational Research Accelerator, the research platform for the Moon Shots Program	9:53 a.m. Report/Discussion <i>President DePinho</i> <i>Dr. Andrew Futreal</i>	Not on Agenda	280
Adjourn	10:15 a.m.		

1. **U. T. System Board of Regents: Discussion and appropriate action regarding Consent Agenda items, if any, assigned for Committee consideration**

RECOMMENDATION

The proposed Consent Agenda items assigned to this Committee are on [Pages 352 - 361](#).

2. U. T. Rio Grande Valley: Report on the U. T. Rio Grande Valley School of Medicine

INTRODUCTION

President Guy Bailey, Ph.D., and Interim Dean Steven A. Lieberman, M.D., will report on the U. T. Rio Grande Valley School of Medicine. A PowerPoint presentation is set forth on the following pages.

BACKGROUND INFORMATION

In 2013, Senate Bill 24 authorized the creation of a new medical school in South Texas in association with a new general academic university, subsequently named The University of Texas Rio Grande Valley. On December 6, 2012, the U. T. System Board of Regents allocated \$10 million in Permanent University Funds annually for 10 years in support of the School of Medicine.

The School of Medicine received preliminary accreditation from the Liaison Committee on Medical Education in October 2015. A new medical education building was completed on the Edinburg campus in June 2016, and the first class of 55 students was welcomed in July 2016. The class includes 20 students originally from the Valley. Fifty-five percent of the students are from underrepresented minority groups.

The School's research enterprise is anchored by the South Texas Diabetes and Obesity Institute, which was established in 2014. External funding for this group increased from \$7 million to \$12.5 million from FY 2015 - 2016. Total external research funding for the School of Medicine was \$22.7 million in FY 2016.

The School's clinical enterprise is being developed in collaboration with several hospital partners throughout the Rio Grande Valley. Additional opportunities to provide health care services not currently available in the Valley are also being pursued.

The School of Medicine embraces the University's commitment to the community and looks to become a leader in the integration of community outreach, academic, and clinical programs to improve the health of people in the Rio Grande Valley.

This is the first report on the startup of the U. T. Rio Grande Valley School of Medicine.

Report on the U. T. Rio Grande Valley School of Medicine

Guy Bailey, Ph.D., President

Steven A. Lieberman, M.D., Interim Dean

U. T. System Board of Regents' Meeting

Health Affairs Committee

February 2017



THE UNIVERSITY of TEXAS SYSTEM
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History and Milestones

- 2013 UTRGV and School of Medicine (SOM) authorized
- 2014 South Texas Diabetes and Obesity Institute founded
- 2015 Four new residency programs opened
- 2015 Preliminary accreditation received from the Liaison Committee on Medical Education
- 2016 Medical education building completed in Edinburg
- 2016 Inaugural class of 55 seated
- 2016 Groundbreaking for new research building in McAllen



Building the UTRGV SOM – Integrating all Four Missions

- Start with a population health lens
- Target major health needs of the Rio Grande Valley (RGV)
- Integrate programs within health need targets:
 - Recruit researchers
 - Develop residencies
 - Build clinical programs
 - Engage continuously with the community



Undergraduate medical education

- Class of 2020
 - 55 students
 - 20 from the RGV
 - 55% underrepresented minorities
- Class of 2021
 - 3957 completed applications
 - 375 interviews



Graduate Medical Education

	2016-2017	2017-2018
Residents	100	134
Programs	6	8
Specialties	4	6
Hospitals	3	4



Research

- Growth in external funding
 - FY15: \$7,023,130
 - FY16: \$22,706,110
- South Texas Diabetes and Obesity Institute – Dr. Sarah Williams-Blangero
- Recruitment of Andrew Tsin, Ph.D., Associate Dean for Research and Chair, Department of Biomedical Sciences
- Groundbreaking on new research building in partnership with Doctors Hospital at Renaissance



Clinical enterprise

- Unique clinical environment
- Opportunities:
 - Unavailable specialty services
 - Joint programs with hospital partners
- Current operations:
 - All Valley Lung Clinic
 - John Austin Peña Clinic
 - Mobile clinic



Community Outreach

- UTRGV Community Hubs (in development)
- Population Health – in collaboration with the U. T. Health Science Center - Houston School of Public Health, Brownsville
- Community Programs
 - Health fairs
 - Vaccination drives
 - “Unidos por nuestra salud” – major community event in April
- Substantial grant funding



Keys to success

- 1-2 years Build the team: faculty, administration
Clinical partnership maturation
Fill unmet specialty needs
- 3-5 years Clinical partnership success
External funding for initial health need targets
- Throughout Constructive relationships with partners



3. **U. T. M. D. Anderson Cancer Center: Report on Translational Research Accelerator, the research platform for the Moon Shots Program**

REPORT

Ronald DePinho, M.D., President, and Andrew Futreal, Ph.D., Chair of Genomic Medicine at U. T. M. D. Anderson Cancer Center, will report on M. D. Anderson's Translational Research Accelerator, the research platform for the Moon Shots Program. A PowerPoint presentation is set forth on the following pages.

BACKGROUND INFORMATION

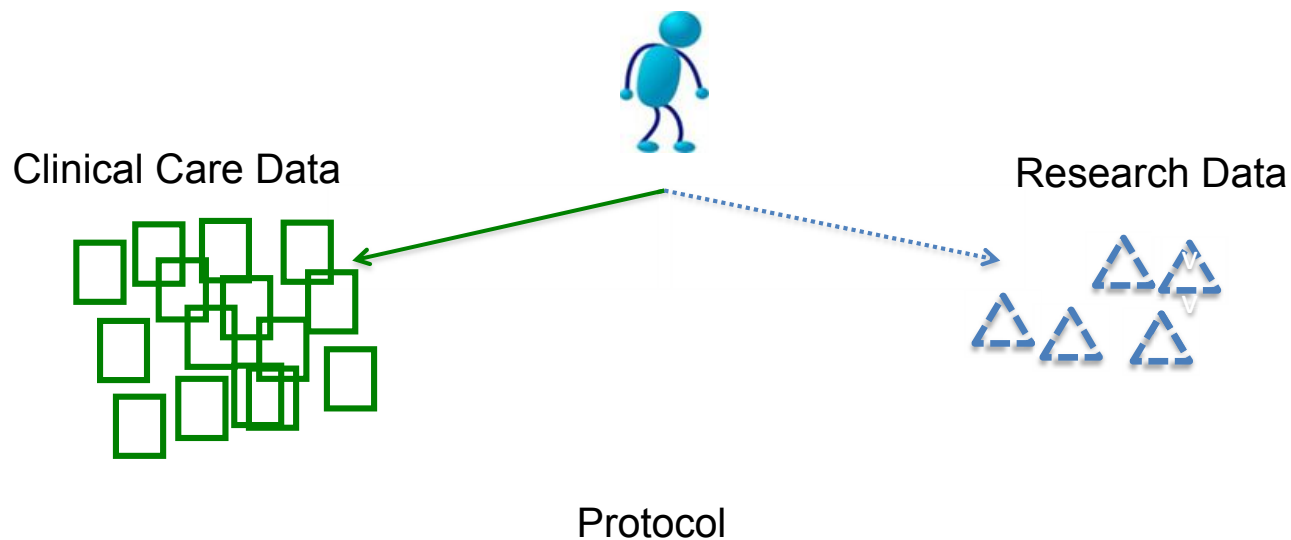
U. T. M. D. Anderson Cancer Center's Translational Research Accelerator (TRA) is a Moon Shot driven platform that has as its primary goal the full, near real-time integration of longitudinal patient-centric clinical and research data for the purposes of facilitating research and accelerating translation. TRA is custom-engineered on "industry" standard architecture to support advanced analytics and cloud integration. Specific attention to tools, interfaces, and visualization are coupled with dedicated computational personnel to help drive research. TRA's secondary goal is to become an infrastructure platform that can allow for real-time patient-centric analytics in the clinical setting. It serves as the backbone for a research paradigm shift with the goal to have every patient contributing to and potentially benefiting from research incorporating the Apollo platform, Moon Shots, and large scale genomics efforts (MDA10K). The Apollo platform is a research infrastructure to standardize longitudinal specimen collection, quality control, and molecular data generation.

The University of Texas M. D. Anderson Cancer Center Translational Research Accelerator (TRA): Learning as much as possible from every patient

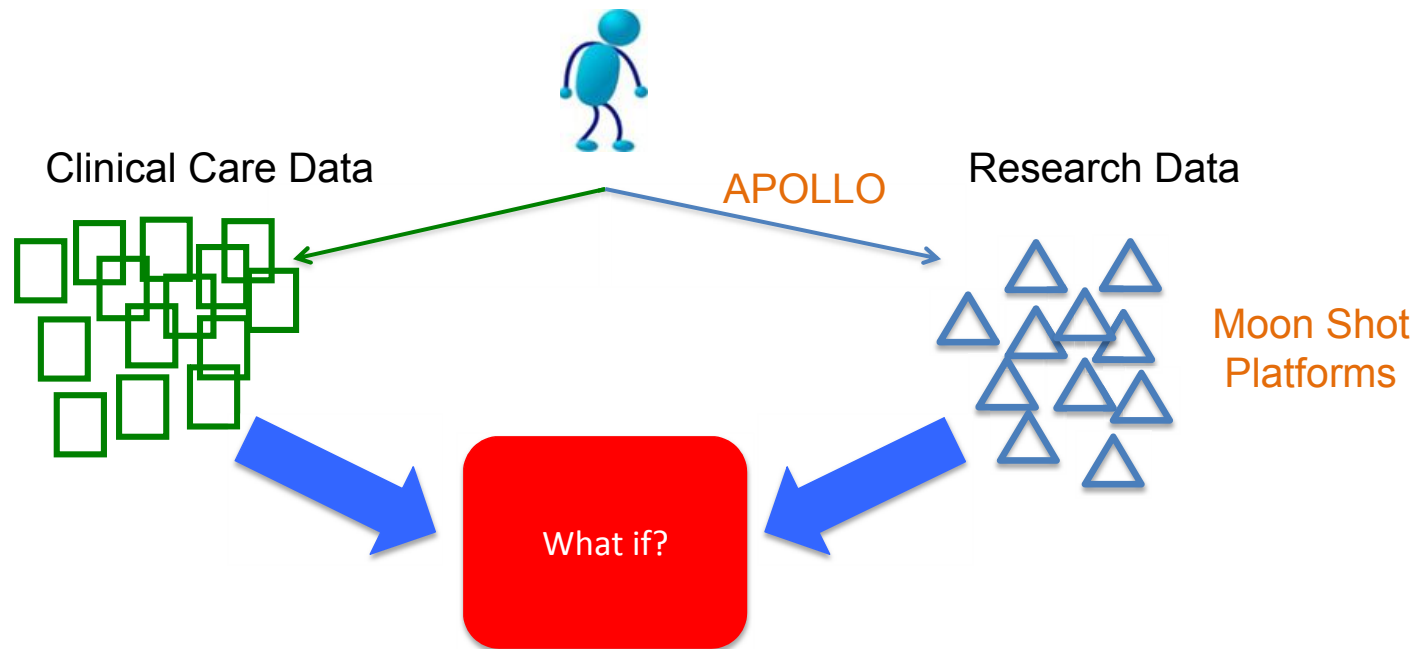
Ronald DePinho, M.D., President
Andrew Futreal, Ph.D., Chair, Genomic Medicine

U. T. System Board of Regents' Meeting
Health Affairs Committee
February 2017

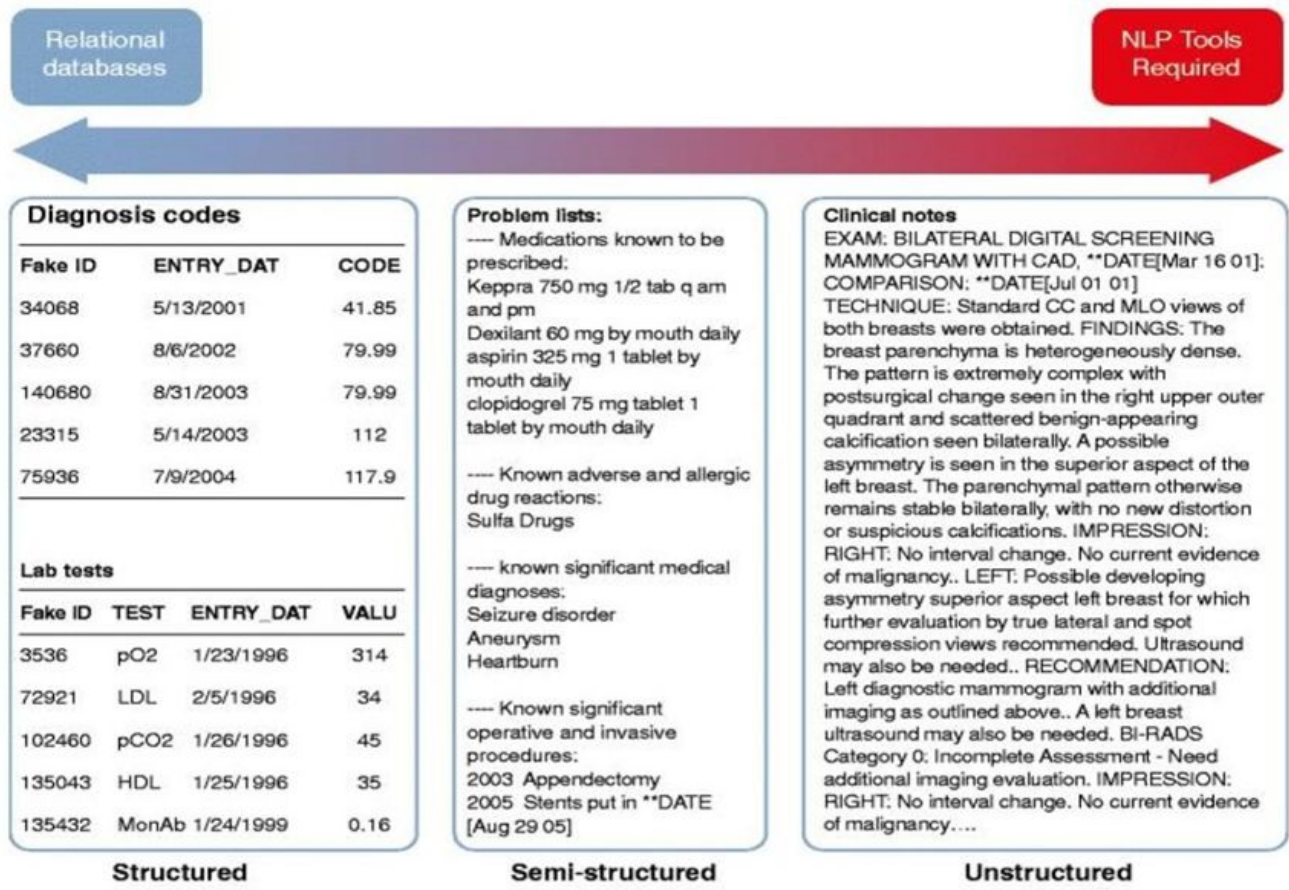
Current state: Missing the opportunity to learn



Purposeful organization and integration of clinical and research data

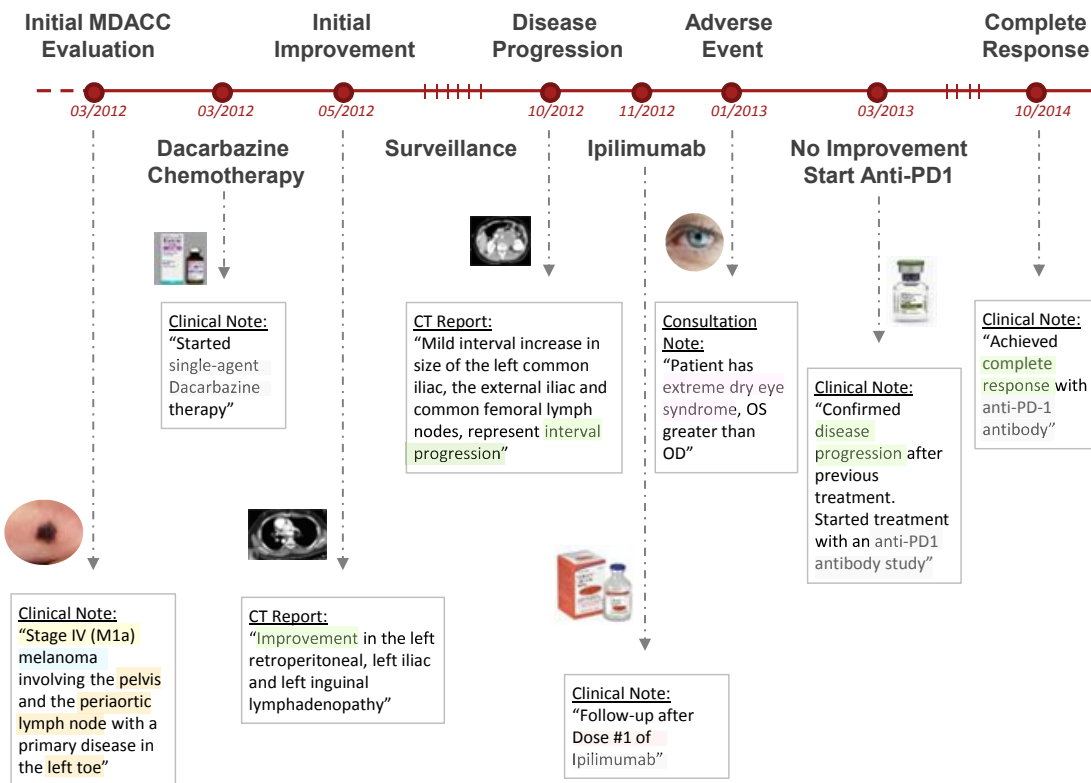


Range of data types: Different demands



Wei WQ, Denny JC. Genomic Medicine. 2015 Apr 30 7(1):41
 doi: 10.1186/s13073-015-0166-y

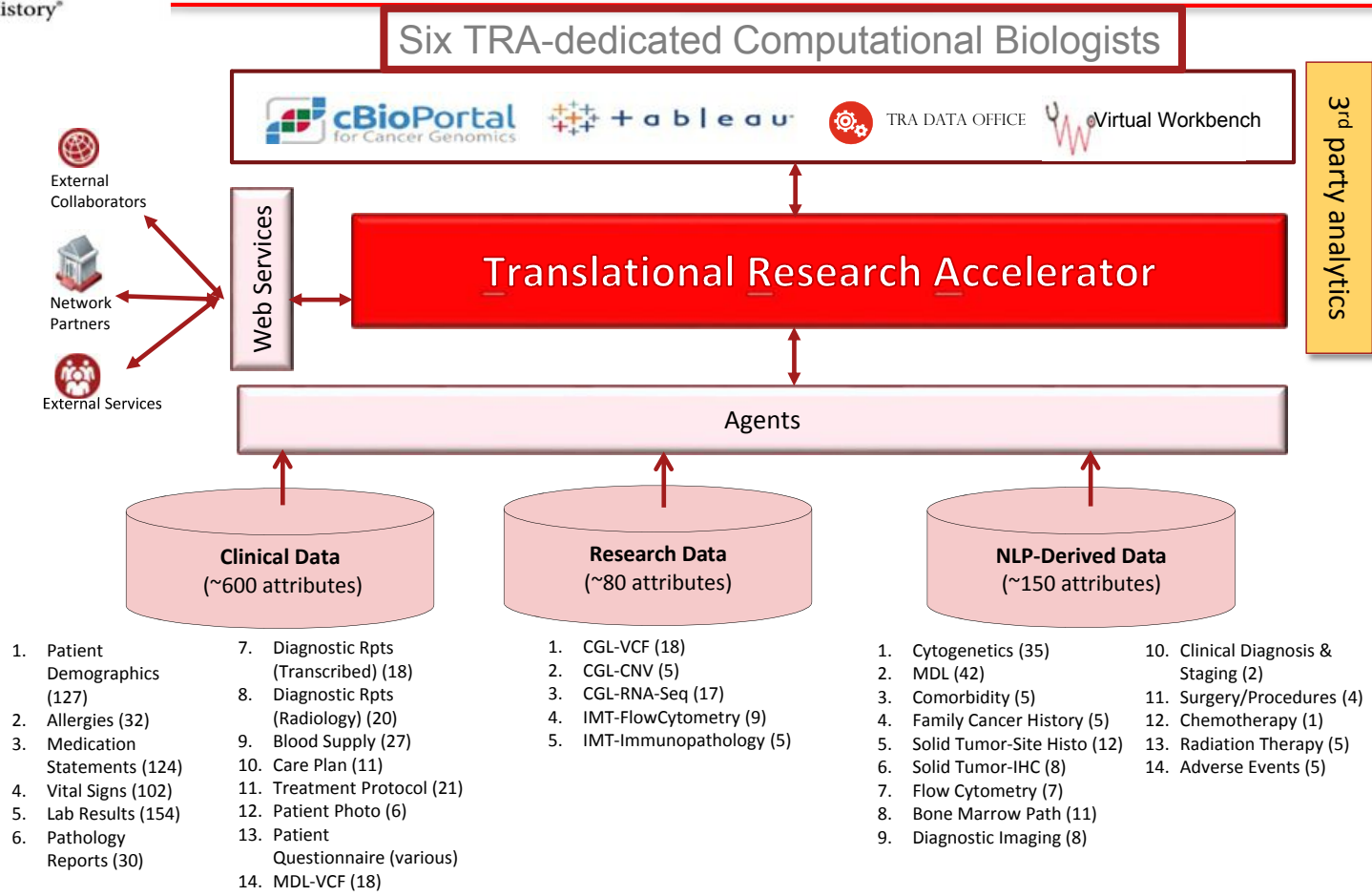
Patient history from ingested data: A point of research departure



Cancer

Medical concepts extracted from patient's medical record free text using NLP:

- Cancer Diagnosis
- Stage
- Body Site
- Chemotherapy
- Response to Therapy
- Adverse Event

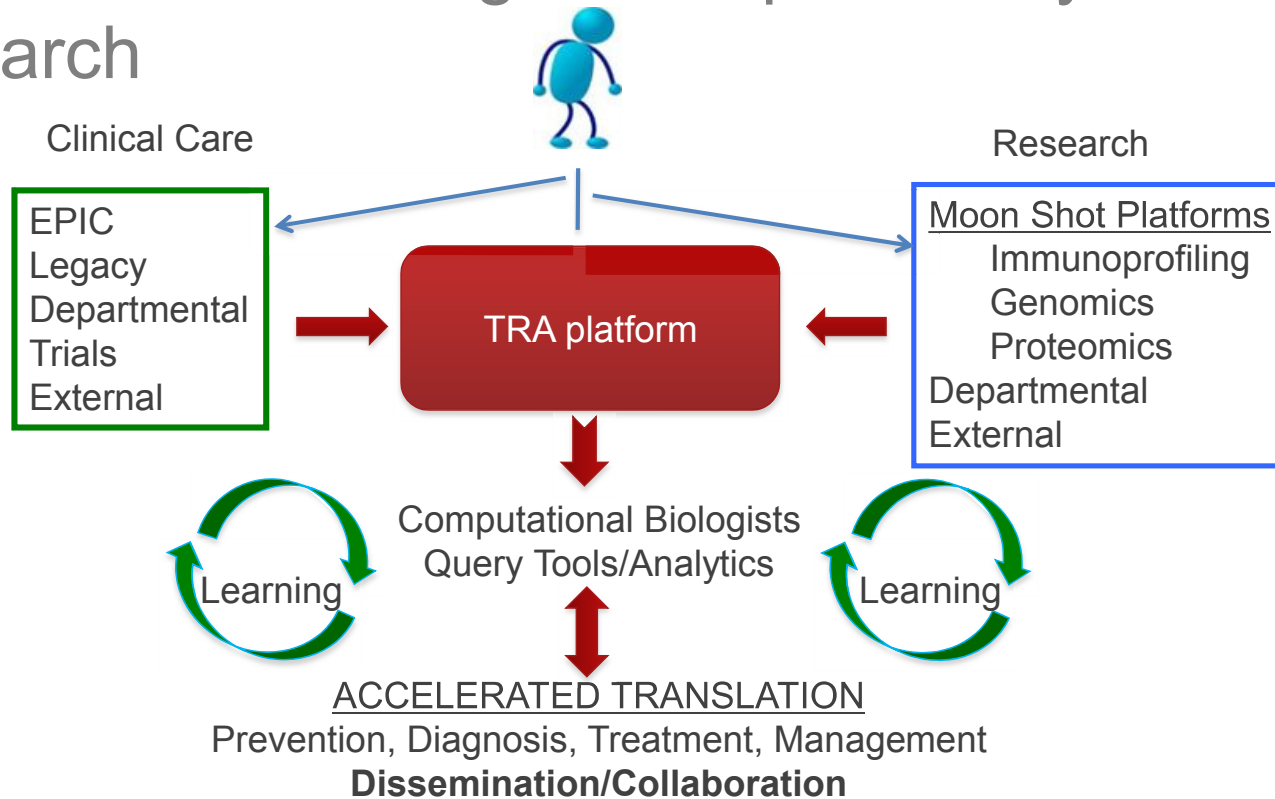


TRA – Progress thus far

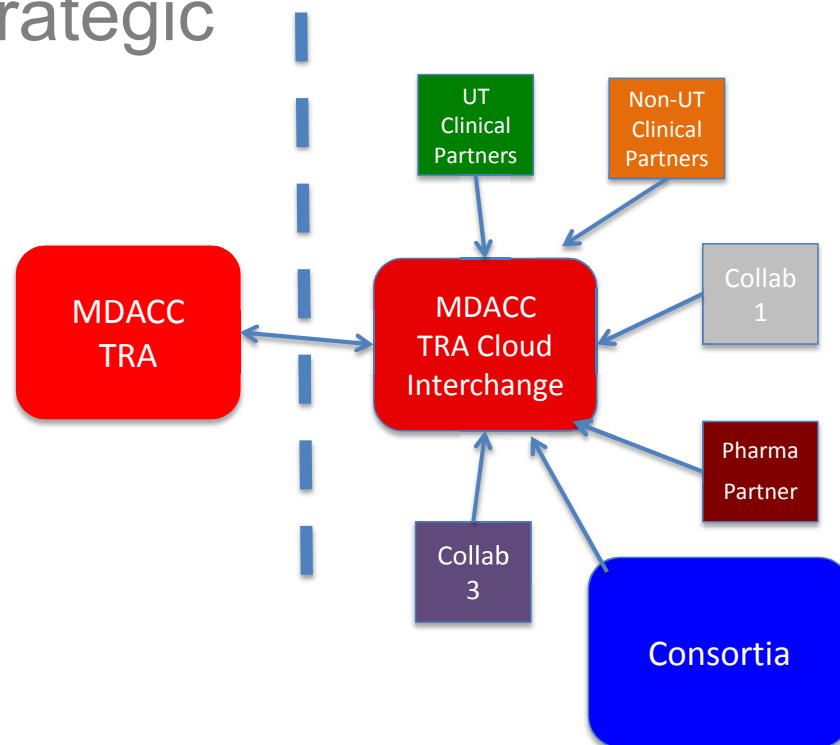
- All patients seen since 2012: 200,000 + patients' clinical data currently loaded into the system
- Currently rolling back a full 10 years – 500K + patients
- 20,000 + patients with genomic data
- Epic Integration going forward
- Common clinical data types
- All molecular testing data, gene panels, labs, medications, and other structured data
- Research data from Moon Shot Platforms (CGL, IMT currently)
- Geared for each new patient; all prior patients' data updated nightly/rolling forward
- Role-based, credentialed, and secure access – in deployment
- Six computational biologists in place to facilitate investigation
- Beta-testers being on-boarded; data office open

Translational Research Acceleration:

Every patient contributing to and potentially benefiting from research



Data Sharing – an approach: Purposeful, study-driven, strategic



The Team

MDACC	PwC US	PwC Offshore (India)	
<p>Leadership Andy Futreal, Ph.D. – Director, Exec Sponsor Vinod Ravi, M.D. – Clinical Director Brett Smith – Technical Director Chris Belmont – Exec Sponsor</p> <p>PMO Sharlene Kmiec – PMO Greg Barbosa – PMO</p> <p>IS/IT Bryan Lari – IAI leadership Jeff Jin – IAI NLP manager Trey Kell – NLP Usamah Zaggar Alex Nguyen Sarah Duran David Qing Joann Tat</p> <p>Comp Bio Team John Zhang – leader Tatiana Karpinets Per Wu Terrence Wu Feng Wang Jun Li Lily Zhao Ethan Mao – cBIO</p>	<p>Leadership Mark Mynhier – Partner Mick Cody – Partner</p> <p>Clinical informatics team Rob Fassett, M.D. – Managing Director Kelechi Nwoku, M.D. – Clinician Informaticist Harlan Stock, M.D. – Clinician Informaticist Rich Kenny, R.N. – Clinician Informaticist</p> <p>Information delivery Dhiraj Pathak – Managing Director Prabal Basu – Tech Lead Sahaya Bennet – Epic workstream lead Shiv Narayanan – DQ, Analytics lead Colin Balickie – Tech analyst Hannah Feldman – Tech analyst Kajal Tiwary – Tech analyst Prerna Bellara – Tech analyst Abhijeet Ghotra – Clinical analyst</p> <p>PMO Marcia Anderson – PM</p>	<p>Clinical informatics team Rishi Malhotra, M.D. – Clinician Informaticist Santosh Shah, M.D. – Clinician Informaticist Varsha Misra, M.D. – Clinician Informaticist Pooja Rajdev, Ph.D. – Bioinformaticist</p> <p>NLP engineering Aanchal Varma – Developer Anuj Goyal – Developer</p> <p>Data Ingestion, Data Quality, Tools Ajimon Vishnumenon Ganesh Alagarsamy Janak Dev Prasad Jyoti Agrawal Krishna Priya Nukala Madhusudan Yeggoni Muthuraman Sethuraman Raghuram Krishnamurthy Rajesh Krishna Ra Shashank Kulkarni Smruthiya Vanchesan Sekar Sree Mathi Ramakrishnan</p>	<p>VWB dev team Aaditya Raj Arjun Bilimagga Sathish Basavaraja Kanayak Shiv Dinesh Ramakrishnan Gaurav Chandra Ipsita Subudhi Monika Singh Nirmala Devi Dorairajan Padmanabha Varanchi Panneerselvam Palaniswamy Prathibha Rao Sandeep Bhatt Vinuthan Boralingaiah Habeebur Ansari Preeti Rahore Nithin Elias</p>