Powering the Possible for Pediatric Cancer





Video





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Evidence based medicine



Information enabled Intelligence based medicine



medicine

Target population

Therapeutic option 1





Selection of representative study cohort



Clinical trail

Therapeutic option 1

30% Response rate



Drug of choice for **EVERYONE** in target population

Therapeutic option 2

20% Response rate



Option 2 is not approved for this indication

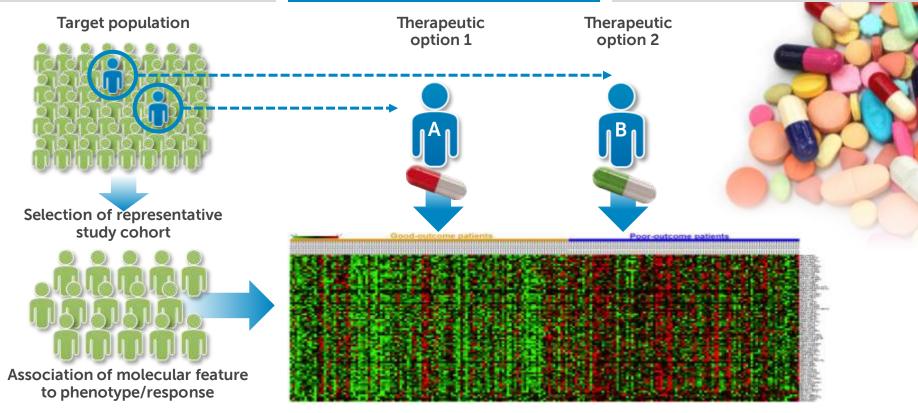


Evidence based medicine





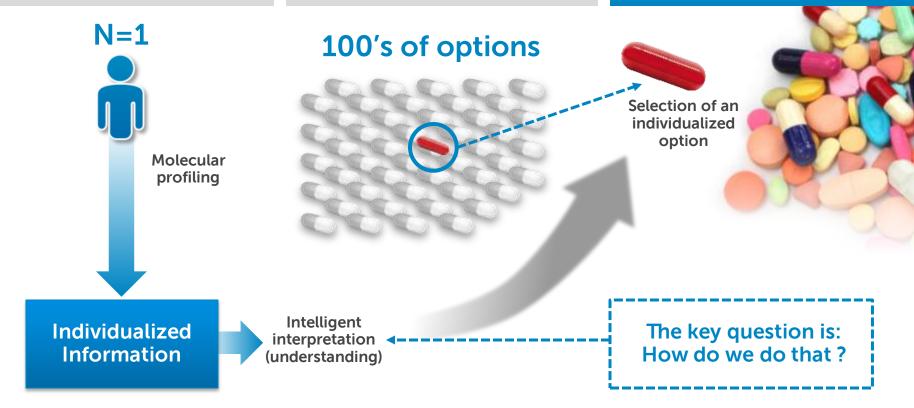
Intelligence based medicine







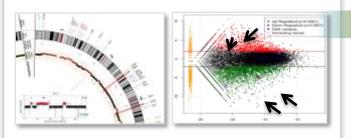
Intelligence based medicine



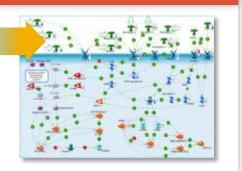
Alignment of Molecular technologies, informatics and knowledge



Characterize genomic aberrations



Prioritize biological information



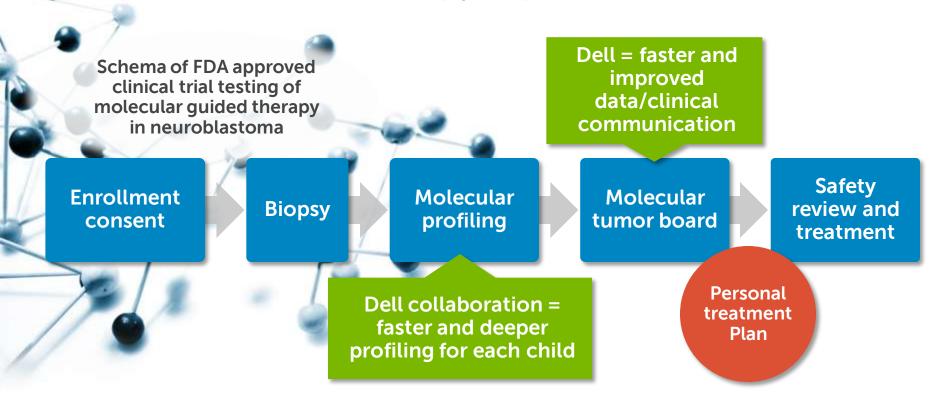
KEY: integrate target discovery with a drug knowledge







First ever clinical trial using Molecular guided individualized therapy in pediatric cancer



Our vision: provide a system that effectively links the pediatric oncology community



Scientific/ clinical community web portals



Wider oncology community
has access to the network so
they can manage, analyze
and link patient data to
pharmacological knowledge
to identify potential
treatment options



Molecular guided therapy in relapsed NeuroblastomaThe impact for a patient



Therapy led to decrease in tumor burden and coming off all narcotics,

no more pain!!



Cloud

technology helps identify personalized treatment strategies for children with neuroblastoma*

*Neuroblastoma strikes one in 100,000 children annually, usually before the age of 5, and it is responsible for one in seven pediatric cancer deaths

Dell's Powering the Possible for pediatric cancer is a multi-year, multi-million dollar commitment of technology, funds and employee engagement to support innovative pediatric cancer treatment programs globally



Simplifies interaction and info sharing between scientists and oncologists so targeted treatments can begin faster

Manages 200 billion data points generated **per patient**

Reduces mapping and analysis from months to **days**

Creates a **real-time**, **growing** body of knowledge





The database creates real-time, global knowledge repository of latest

findings on the most effective treatments

Helps to refine cures for other children diagnosed with neuroblastoma

Lays the groundwork for expansion into other types of childhood cancers



NMTRC: Doctors administer treatment and add findings back into the database

TGen Cloud Computation & Collaboration Powered by Dell

8.2 teraflops and growing

 1,200% increase in compute power over existing clinical computing cluster

- Dell Precision Workstations
- Dell PowerEdge Blade Servers
- Dell PowerVault Storage Arrays
- Dell Compellent Storage Center Arrays
- Dell Force10 Network Infrastructure
- Technical expertise and support



DNA mapping results are saved to the TGen Cloud

Information is stored in a protected, accessible manner so that doctors can get the results quickly TGen: Molecular characterization of the tumor is performed

Specific tumor make-up is mapped against millions of DNA and treatment variables

Best match is based on other patients with a similar make-up and the treatment that worked well for them



Thank You

