ENABELING PRECISION MEDICINE

the problem

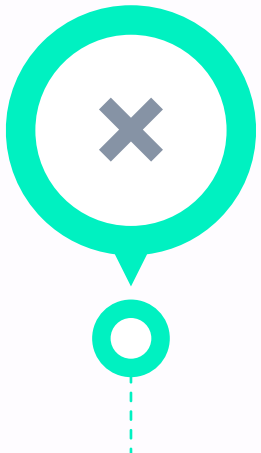
THE CLINICAL SIGNIFICANCE OF MOST GENETIC VARIANTS IS UNKNOWN

market share

Genetic testing companies are fighting for market share

failure

Diagnostic yield for genetic tests is low **10-30%**



patients

Genetic tests do not have broad scope because the impact of most variants is unknown

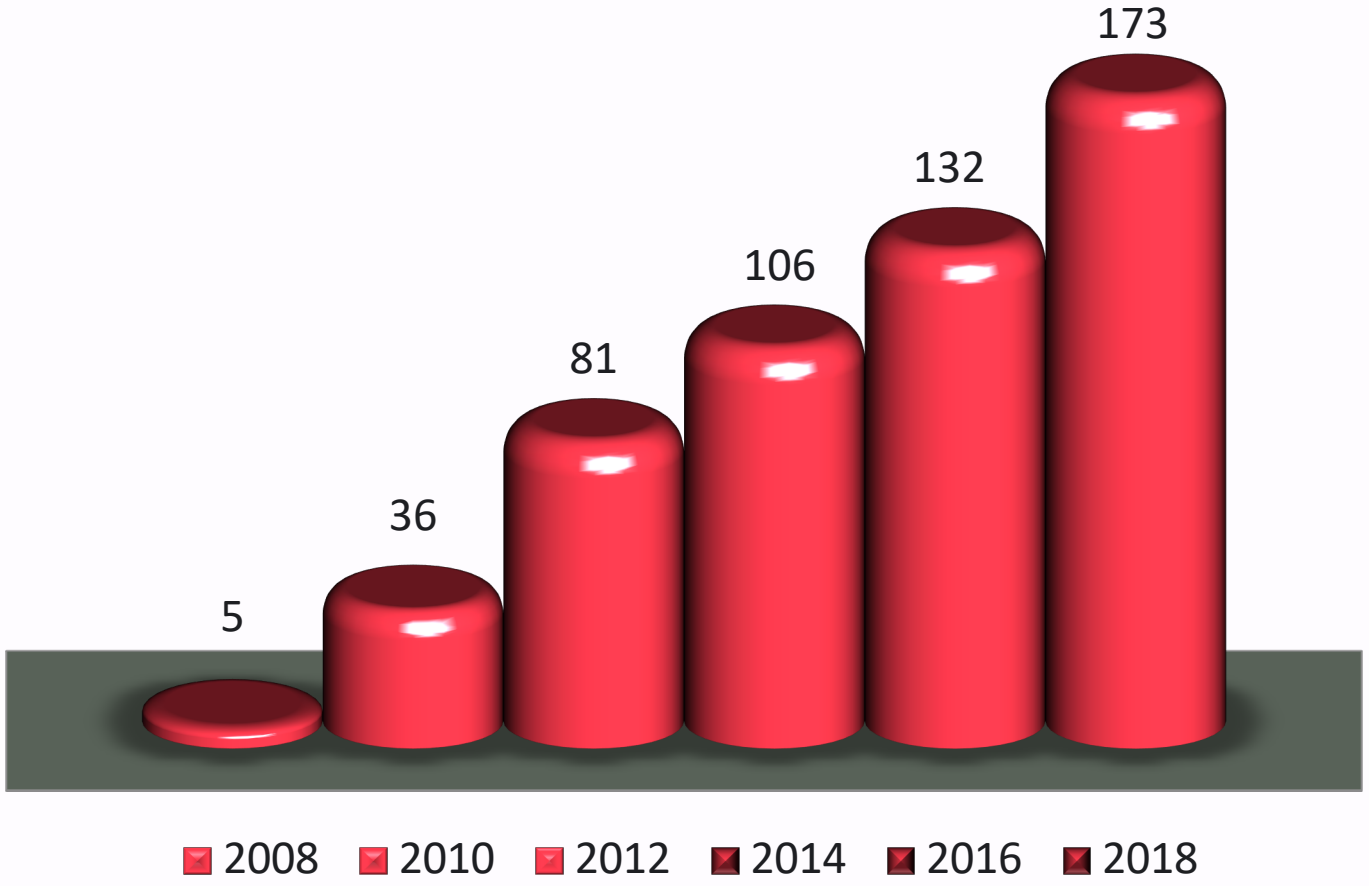
one size does not fit all

Percentage of the patient population for which a particular drug is NOT effective

Anti-Depressants (SSRI's)	38%
Asthma Drugs	40%
Diabetes Drugs	43%
Arthritis Drugs	50%
Alzheimer's Drugs	70%
Cancer Drugs	75%

From Spear and Huff et al. Trends Mol Med 2001 Clinical application of pharmacogenetics

emergence of precision medicine



- 46% of total recent approvals
- One or few genetic markers

From "The Personalized Medicine Report: 2017 Opportunity, Challenges and the Future". http://www.personalizedmedicinecoalition.org

the solution

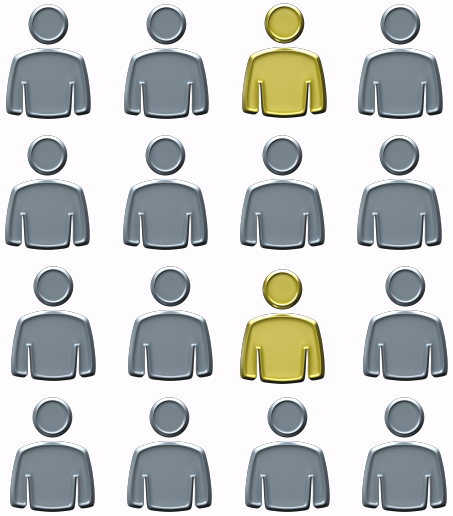
100% PRECISION CARE WITH GUESS-FREE ADVANCED GENETICS

WE OFFER

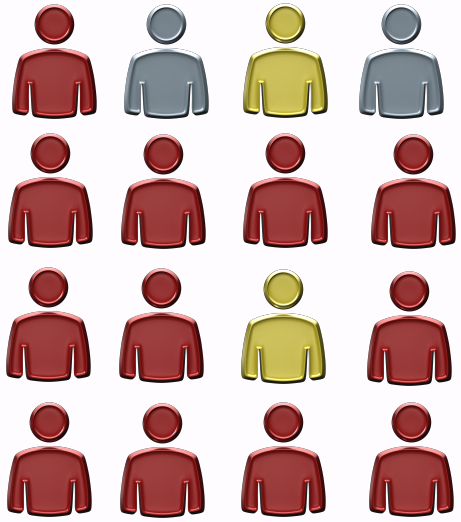
- *Improve diagnostic yield with gene mutation libraries*
- *Functional experimental data for training deep learning algorithms*

Gene Panel Diagnostics

Single Mutation Diagnostic Yield



GML Gene Panel Diagnostic Yield

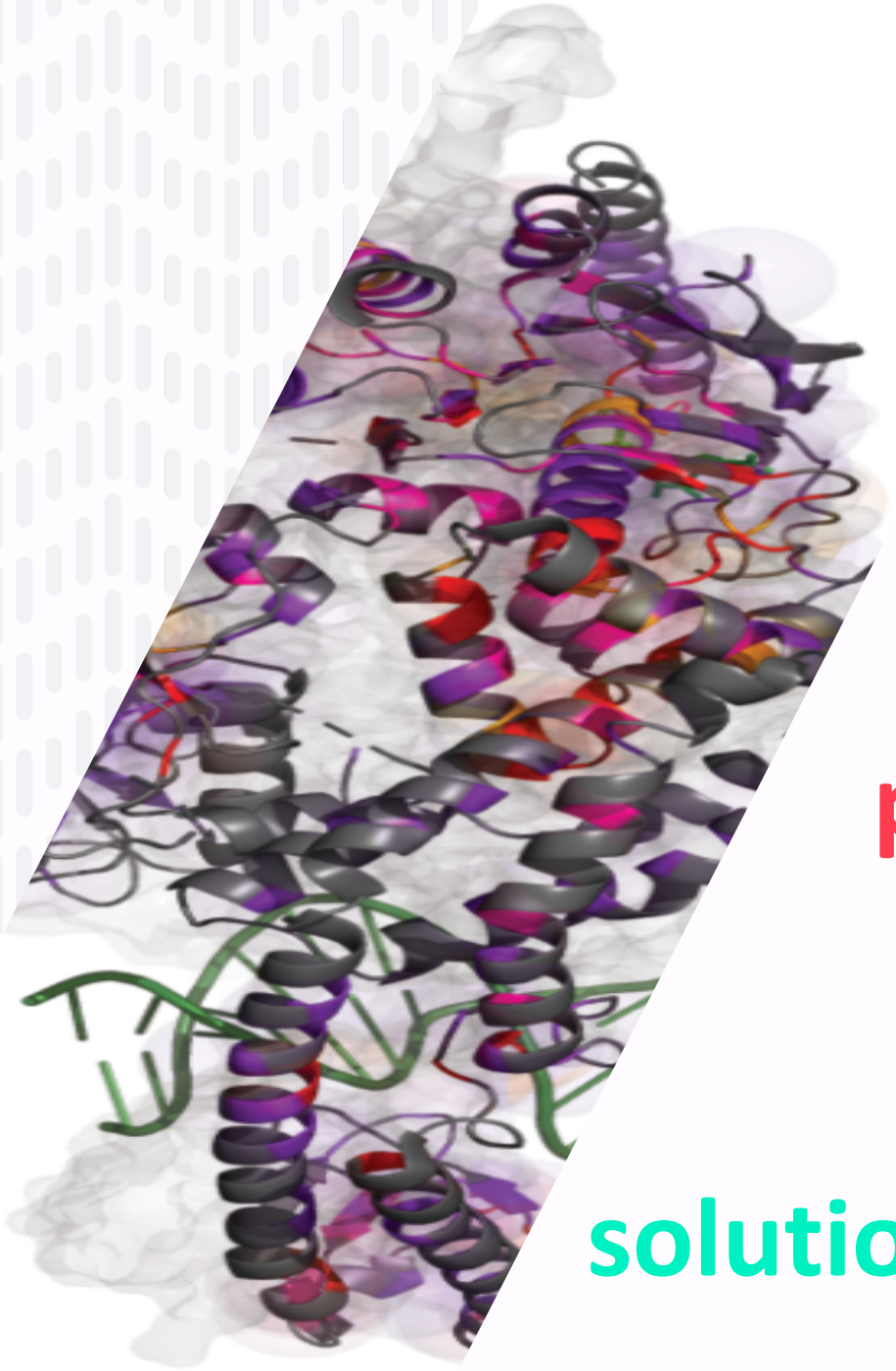


Disease, but lack Single Mutation Biomarker

Disease with Single Mutation Biomarker

Disease with Gene Panel Biomarker

Better Diagnostic Yield



EXAMPLE OF

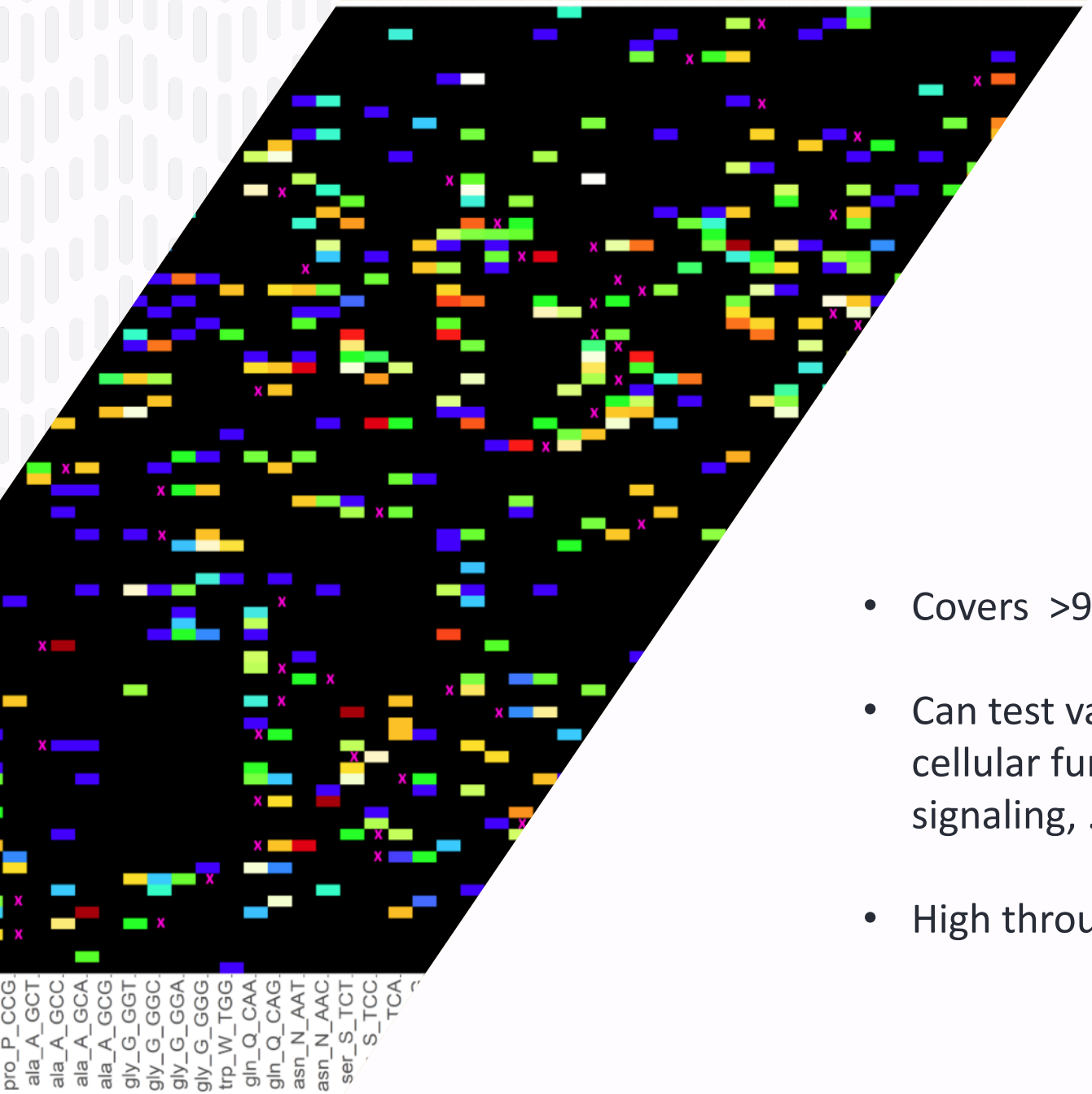
Lynch Syndrome *MSH2*

problem

- Diagnosis of Lynch Syndrome
- E483G and L173P are pathogenic missense variants
- GML with 1,700 new loss of function pathogenic mutations (VUSs)

solution

A *MSH2* GML that uses all MSH2 loss of function variants for diagnosis



OUR UNIQUE ADVANTAGE

GigaAssay

- Covers >95% of all single amino acid substitutions (variants)
- Can test variants with any human reporter systems for any cellular function: transcription, cell division, cell death, cell signaling, ….
- High throughput – 100,000s of cell measurements

heligenics

connecting mutations to health

https://heligenics.com/

https://www.linkedin.com/company/heligenics-inc/?viewAsMember=true

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