

THE JACKSON LABORATORY PRESENTS

The Forum on Healthcare Innovation

OCTOBER 25 – 26, 2017 • FARMINGTON, CONNECTICUT

The Jackson Laboratory
The Jackson Laboratory

IN COLLABORATION WITH THE
CONNECTICUT HEALTH COUNCIL

Featured Speaker: Francis Collins

Director, National Institutes of Health



Collins' Commentary

- NIH budget: growing despite other cutbacks
 - House and senate committees pushing increases
 - Continued focus on young investigators
- New technologies
 - CRISPR-Cas9
 - Single cell genomics
 - Microbiome
- All of Us – one million sequences

The View From 30,000 Feet



© The Jackson Laboratory

Consumer Genomics: Here, now!

- Tools for mass precision medicine:
 - Helix: low-cost, consumer-controlled sequencing
 - Genome Medical: scalable counseling, linked to records
 - ActX: screen for medical issues, drug reactions and link to medical records
 - Other applications are multiplying exponentially

Genomic Medicine Is Happening

- Pioneering medical systems are linking sequence data with patient records for prediction and diagnosis:
 - Colorado, Vanderbilt, Geisinger, Innova, Intermountain, Mayo and many others
 - Attacking the problem of interoperability
 - Next challenge: demonstrating the economics of predictive screening

Aging May Be the Key

- Is aging the real disease?
- Cancer, diabetes, cardio: merely symptoms?
- Most medical costs in final years of life
- Single disease focus may drive costs higher
- **Experimental methods of increasing life and health span in animal models are now being applied to people**

My takeaways

- Collins: The age of precision medicine is here
- The field is moving fast: we must move fast, too.
- Big data is ubiquitous, analytics and tools are key
- Entrepreneurs are building the components of a new medical infrastructure
- Many small successes are as good as one big one
- Prediction will soon equal diagnosis in value