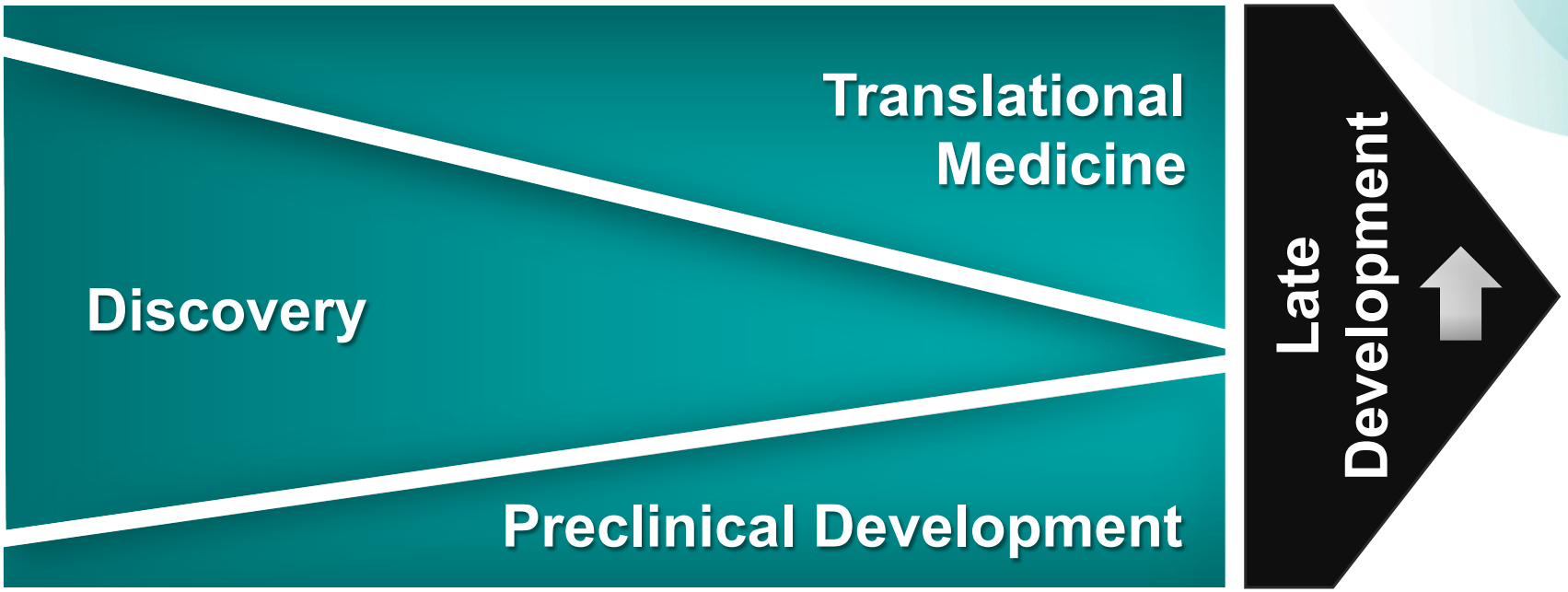


# 2<sup>nd</sup> annual GpGx retreat

# Thank you!

# Integrate and elevate



**Innovation Hubs**

Target ID and  
Validation

Lead Optimization

Early Development

Phase II-III Clinical  
Trials

## Translational Medicine (TM)

- Genetics & Pharmacogenomics (GpGx)
- Translational Biomarkers (tBio)
- Translational Pharmacology (tPharm)

Translational  
Medicine

# Translational Medicine

- Select targets based on causal human biology
- Develop biomarkers of target modulation
- Test therapeutic hypotheses safely and efficiently

## Genetics & Pharmacogenomics

- Advance targets anchored in human genetics
- Discover novel biomarkers using genomics
- Apply genetics and genomics in clinical trials

## Translational Biomarkers

- Develop and qualify novel biomarkers for (discovery & clinical)
- Deploy biomarkers to inform pipeline decisions
- Develop and deploy companion diagnostic tests

## Translational Pharmacology

- Discover novel targets and biomarkers to start new programs
- Conduct early clinical development trials to test therapeutic hypotheses
- Support late development programs through filing & approval

Target ID and Validation

Lead Optimization

Early Development

Causal Human  
Biology

*Which targets, when perturbed, have a desired effect on human physiology?*

*Which biomarkers measure therapeutic modulation in a human system?*

Target Modulation  
Assays

*How can we safely test therapeutic hypotheses in humans as quickly and efficiently as possible?*

Proof-of-concept  
Clinical Trials

Phase II-III  
Clinical Trials

*Prediction: We will increase the success rate in late stage development by several fold*

# Future Innovation

