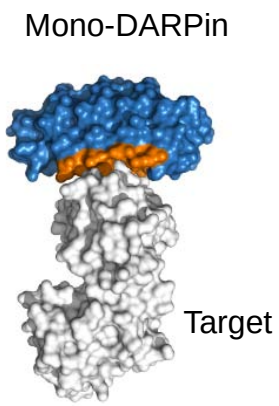
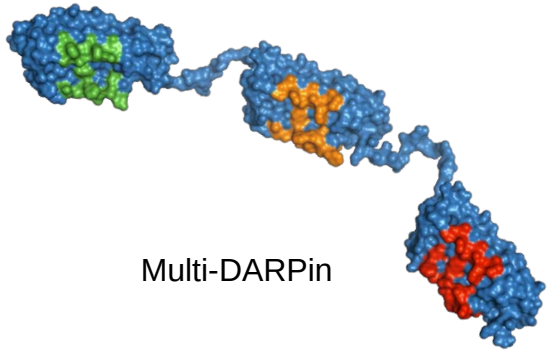
Molecular Partners Develops DARPins™: A Novel Class of Protein Therapeutics

- **DARPins are derived from natural binding proteins**

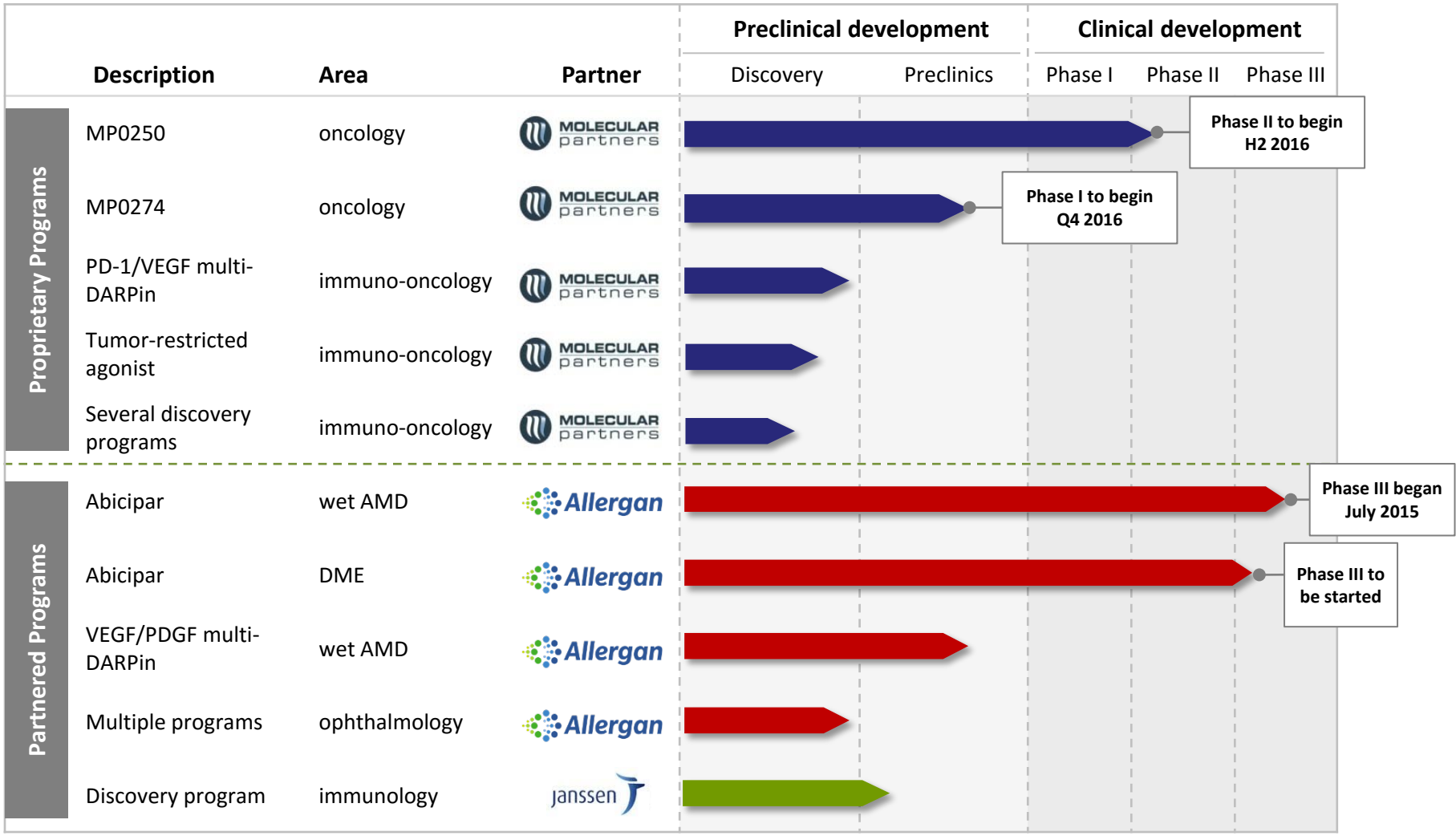
- **Mono-DARPins as ideal drug building block**
  - Fast and robust selection and discovery process
  - Small, potent binding proteins
  - Pronounced class behavior (high stability, solubility, manufacturing)

- **Multi-DARPins combine multiple activities in one molecule**
  - Fast and simple genetic fusion of mono-DARPins
  - Unchanged biophysical properties (high developability)





Broad Pipeline for Unmet Patient Need



Cancer Progress by Defined Health
New York, NY | March 8 - 9, 2016

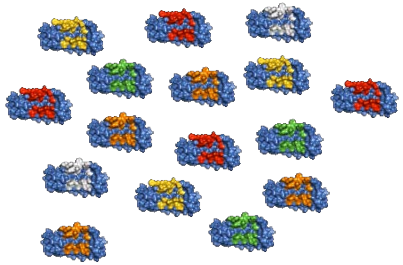
DefinedHealth unconventional insight
THERAPEUTIC INSIGHT by Defined Health
CANCER PROGRESS by Defined Health

How Do We Pick Our Programs?

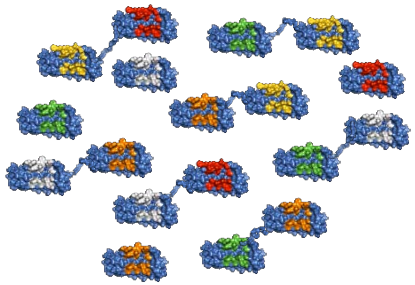
- Foster innovation
  - Build a culture of innovation with low hurdles to start – but also to kill – projects
  - The next experiment should aim to prove that the approach is wrong
- Use your technology and processes to get differentiated molecules
  - Go for those candidates with the strongest differentiation based on your approach
- Do not take risks that can be avoided
  - Differentiation with novel biology can be very risky and unpredictable
- Get the right team in place to position your molecule clinically

Combinatorial Search for Differentiated Molecules

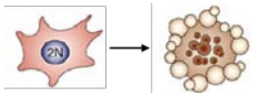
Diverse pool of mono-DARPins against different epitopes of HER2

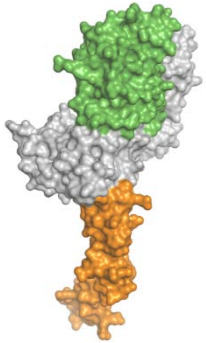


Combinatorial generation of multi-DARPins



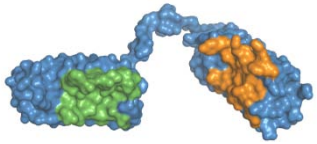
Screening on HER2+ cancer cells for apoptosis



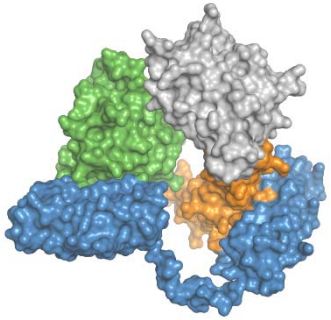


Active conformation of HER2 receptor

our model



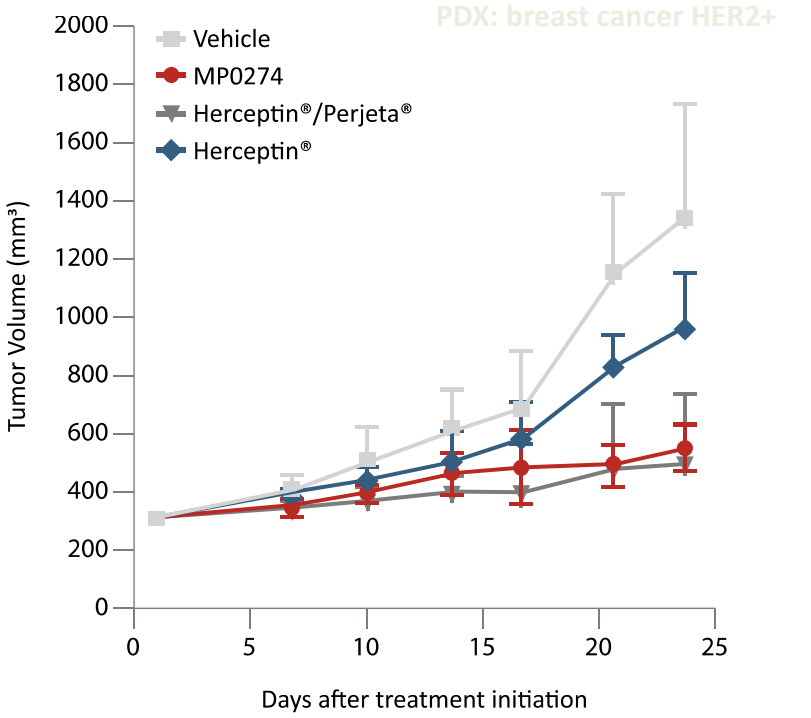
DARPin "handcuff"



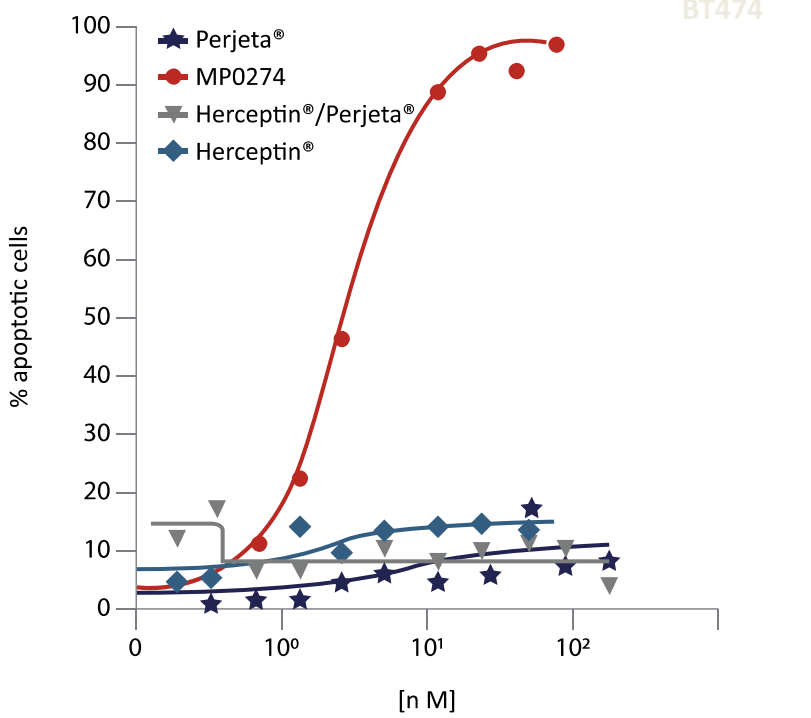
Inactive conformation of HER2 after "handcuffing"

HER2: Novel MOA Against an Established Target

Tumor volume



Tumor cell apoptosis



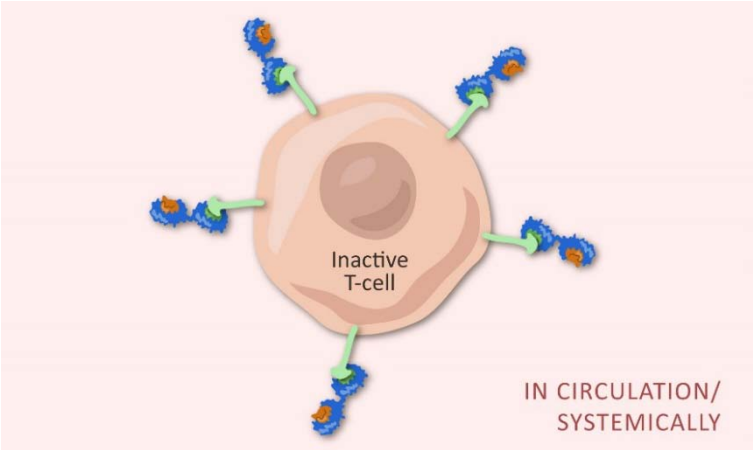
- Direct induction of tumor cell death (apoptosis) unique to MP0274
- Higher potency than Herceptin in HER2+ tumor models
- Comparable potency to Herceptin/Perjeta combination in HER2+ tumor models

Our Strategy in Immune-oncology

- Enhancing immune checkpoint modulators (ICMs)
  - Combine established I/O targets with validated enhancers
  - Superior efficacy with minimal target risk
- Unleashing the potential of agonists in I/O
  - Enhanced efficacy with decreased systemic toxicity
  - Activate ICMs in the tumor while being inactive in circulation
- Freedom to operate on well-validated targets
  - Unlock access to proprietary (IP-blocked) targets with strong validation
- Platform for rapid generation of drug candidates against emerging targets

Unleashing the Potential of Agonists in I/O

- Agonistic ICMs are highly potent but often toxic
  - T-cell activation happens upon receptor clustering
  - Antibodies cluster via Fc in the tumor and in circulation
  - T-cell activation in the circulation can lead to severe toxicity



- Selective activation of T-cells in tumors with multi-DARPins on tumor stroma