

Genentech

How we Continue to Innovate

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Disclaimer

- This presentation reflects my thinking only
- There are many vendors, including Teradata who are pivotal to our innovation.
- I am not a scientist.

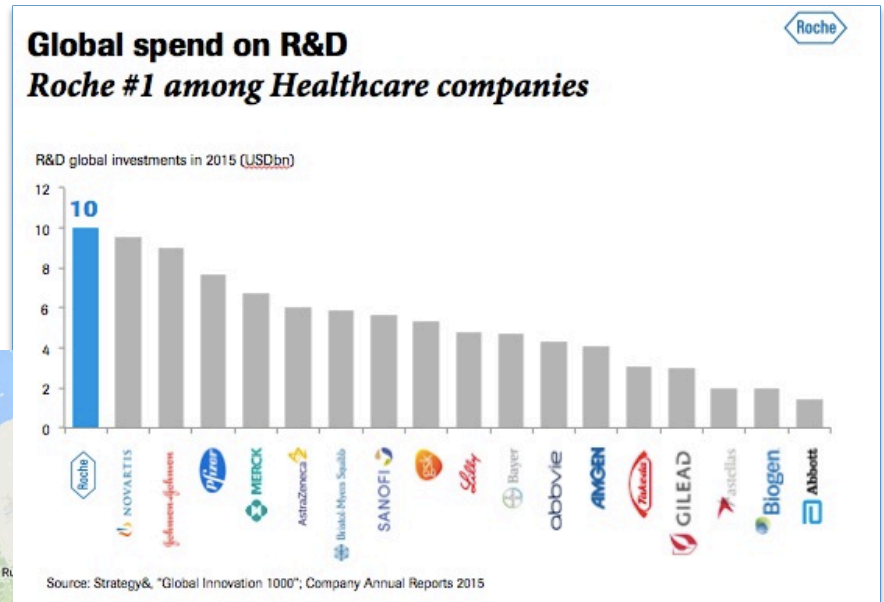
Genentech's Beginning... 2 stories



Napo, by an image of a molecular model of Avastin, which was developed based on his earlier discovery of VEGF.

Genentech (Roche) now

- 88,509 employees



Competitors accelerating their R&D programs

Regulators support alternative approaches

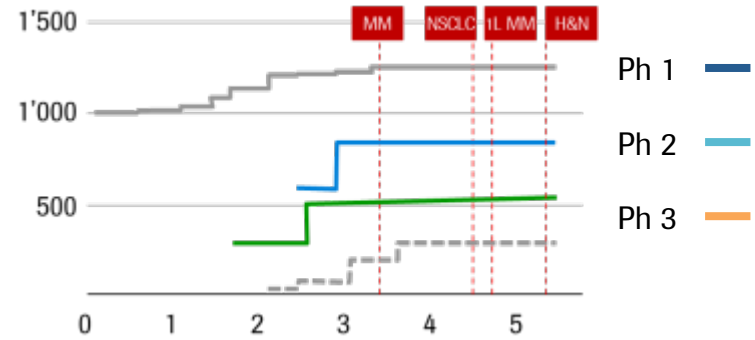
Celltrion: Usage of RWD & extrapolations



MabThera
Rituximab
CENTRAL TO SUCCESS

- Approval based on extrapolation of minimal data set
- Accelerated entry by >6 months

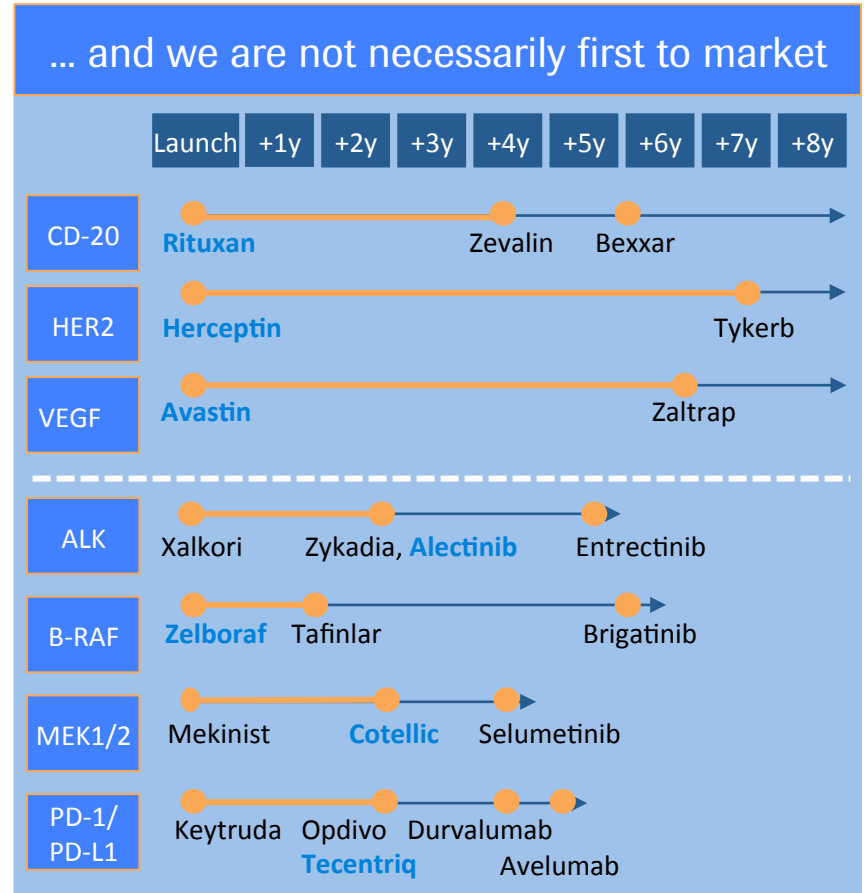
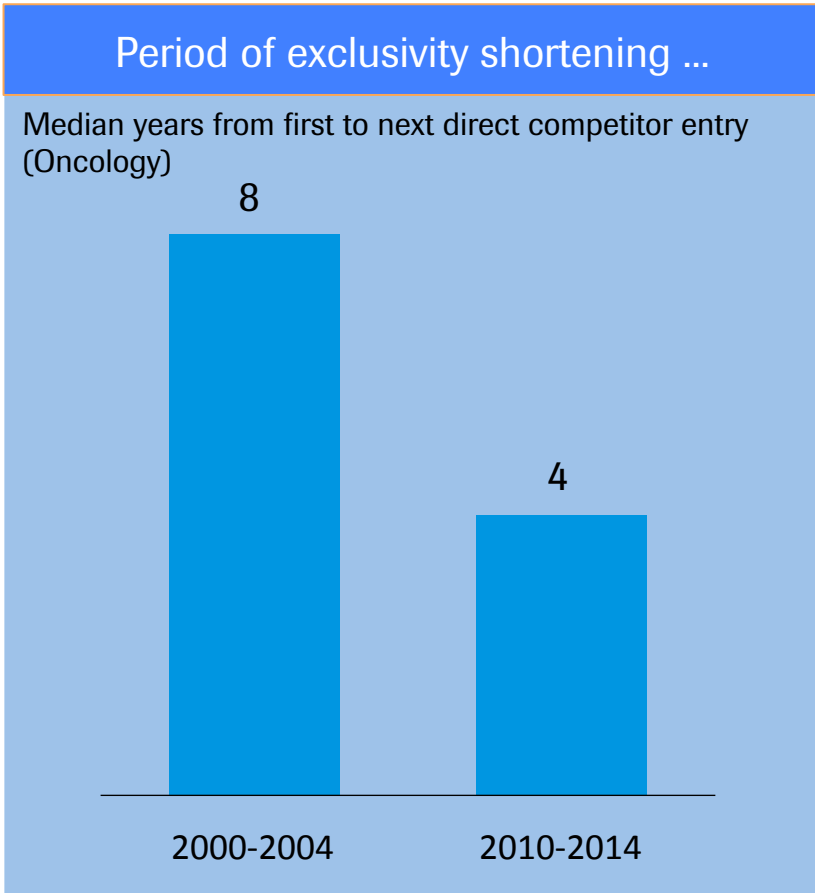
Keytruda: Adaptive, phaseless R&D



- Approval in just over 3 years after entering Keynote-001
- Leapfrogging in 1L lung combo

Periods of exclusivity shortening

Important to be early to market & compete effectively



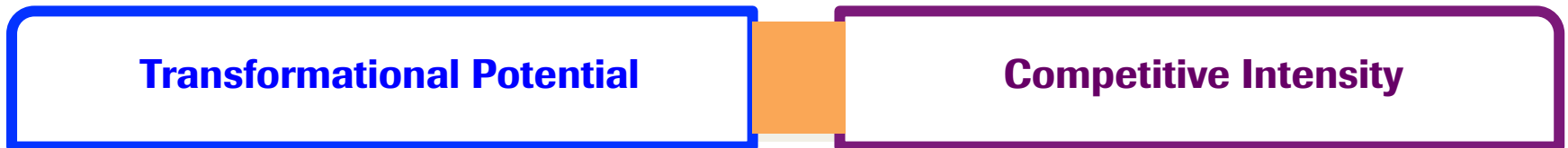
We are looking for ways to replicate the innovative environment.



Leverage an approach in R&D that mimics a smaller company.



Acceleration of high potential, high priority candidates with one or both of the following:



Six RED molecules in initial JEWEL pilot
Potential launch acceleration up to 8 quarters

We are looking for ways to replicate the innovative environment.



Create an innovation function accountable for thinking and driving innovations.

PD Strategic Innovation is a cross-disciplinary team that **accelerates the transformation of drug development** to meet future needs of patients.



Evolve a new **Data Ecology** with an individual patient in mind



Patient Centered Development



Create **New Trial Models** to meet the evidence needs of the future

We are looking for ways to replicate the innovative environment.



Invest in an infrastructure where the smart people can innovate and create.

- Technology
 - GLIDE
 - EDIS
- People
 - Medical Data Hub
 - Real World Data
- Process
 - RAAN
 - Connected culture



Key Messages

- Innovation occurs when the environment is right
- Seems easier in a small company than a larger one
- Need to be overt and try multiple approaches to enable innovation

Doing now what patients need next