

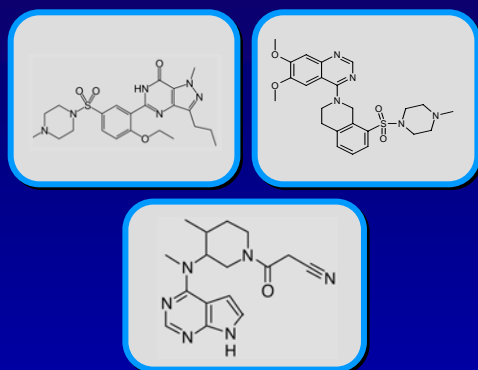


***Transforming Drug Discovery***  
***Innovative Platforms***

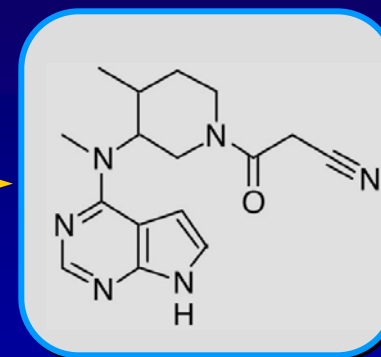
**Martin Mackay, Ph.D.**  
**Senior Vice President**  
**Worldwide Research and Technology**

# Pfizer *More, Better, Faster*

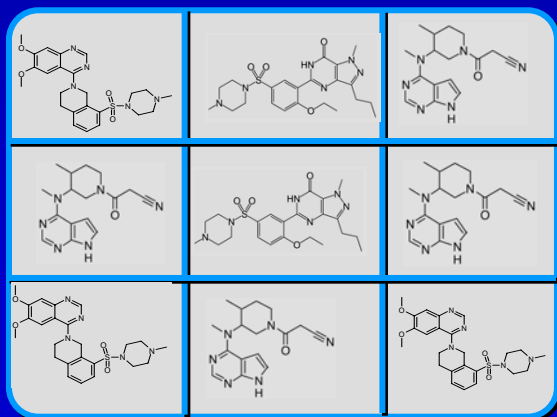
## *From a Linear Process*



**Single  
Target**

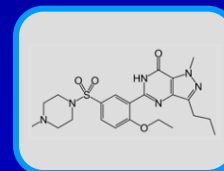


## *To a Parallel Process*

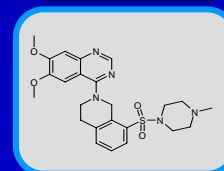


**Gene  
Families  
of Targets**

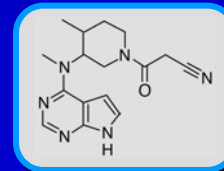
**Drug A**



**Drug B**



**Drug C**



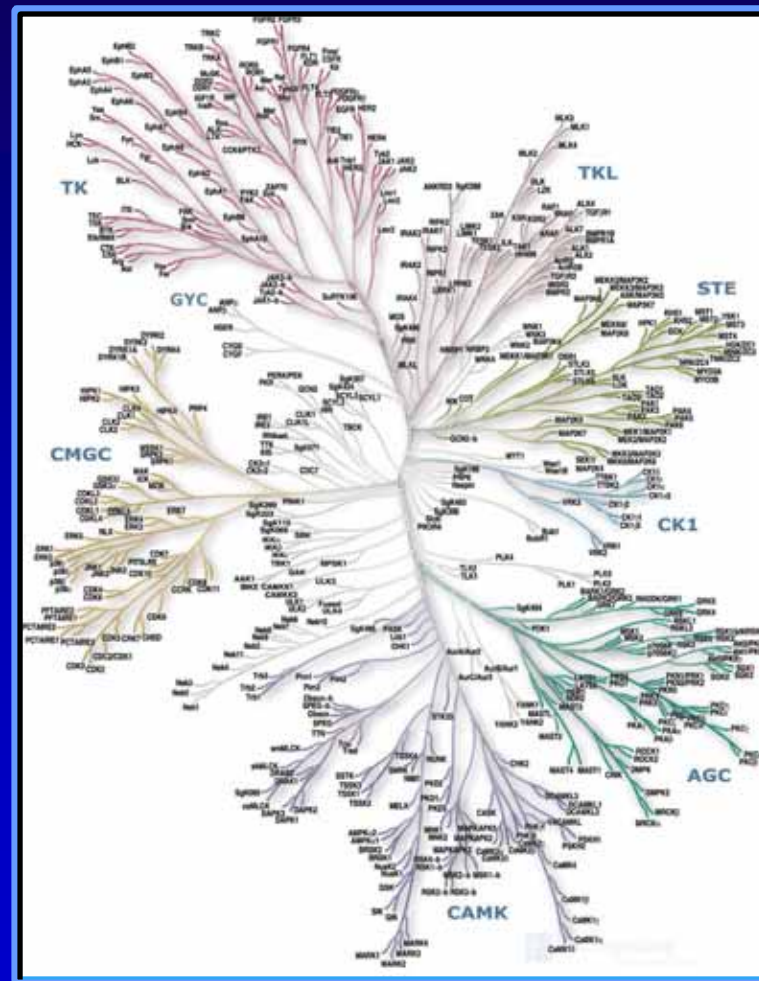




## The Kinome

### A Substantial Drug-Discovery Opportunity

- ◆ 30,000-40,000 Human Genes
- ◆ 3,000-4,000 Druggable Targets
- ◆ 518 Kinases In Genome
- ◆ 17 Major Kinase Groups, 134 Kinase Families
- ◆ 214 Kinases Implicated in Disease



*Manning et al., Science 298: 1912, 2002*



## **Early Success at Pfizer**

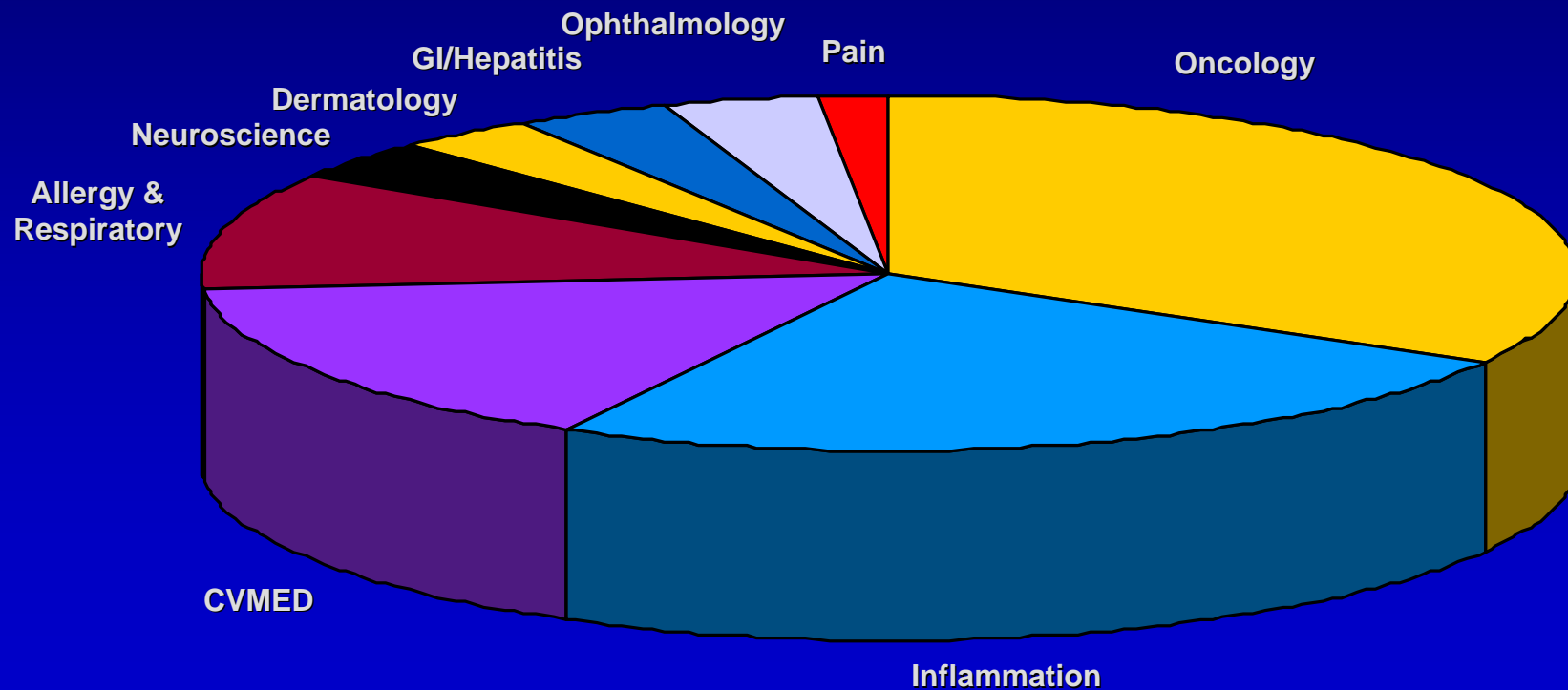
<b>Name</b>	<b>Target</b>	<b>Status</b>
<b>Tarceva® *</b>	<b>EGFR</b>	<b>Launched 2004</b>
<b>Sutent®</b>	<b>Multi Tyr Kinase</b>	<b>Launched 2006</b>
<b>Axitinib</b>	<b>Multi Tyr Kinase</b>	<b>Phase 3</b>

\*Discovered at Pfizer, owned by OSI/Genentech



# A Dazzling Kinase Portfolio

*56 Kinase Programs  
Across 9 Therapeutic Areas*

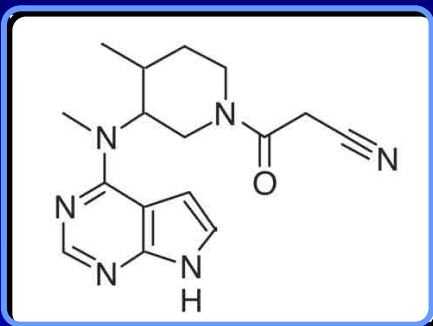




# World-Class Infrastructure

**Pfizer Leads in Number of Kinase Patents  
20% from Jubilant Database Published to 2005**

**Kinase Targeted Library (KTL)**



**Kinase Co-Crystal Structure DB**



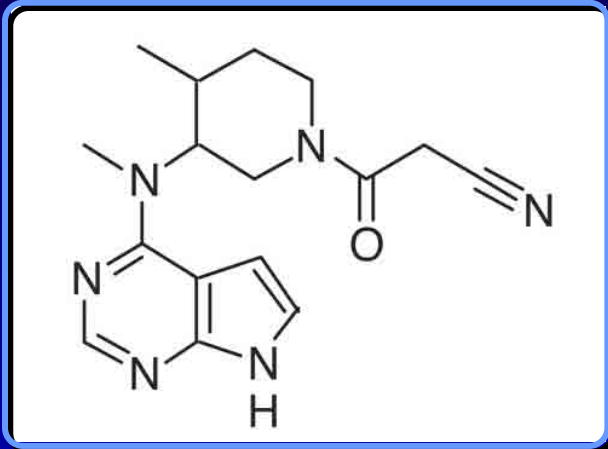
**Kinase Selectivity  
Panel (KSS)**



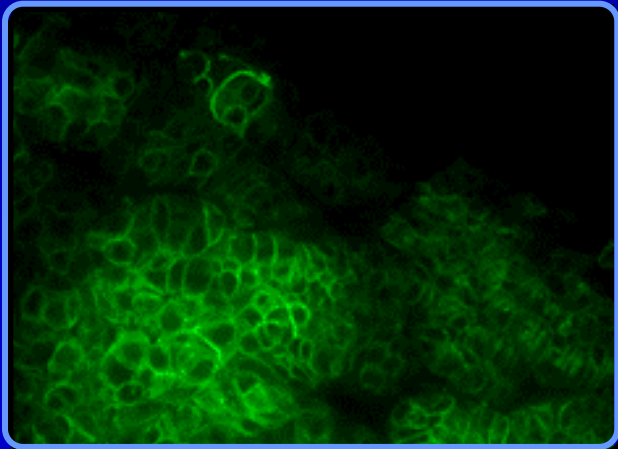
**Integrated Knowledge  
Platform (K2B)**



## **A New Era of Kinase Inhibitors**



◆ **Janus Kinase 3 (JAK 3)**



◆ **c-Met**



**CP-690,550**

***Shows Potential Across Many Diseases***

- ◆ **Human Genetics Implicated JAK 3 as Target for Immune-System Disorders**
- ◆ **CP-690,550 Shown to be Effective in Organ Transplant**
- ◆ **Rheumatoid Arthritis is an Autoimmune Disorder Hence our Desire to Test in this Indication**

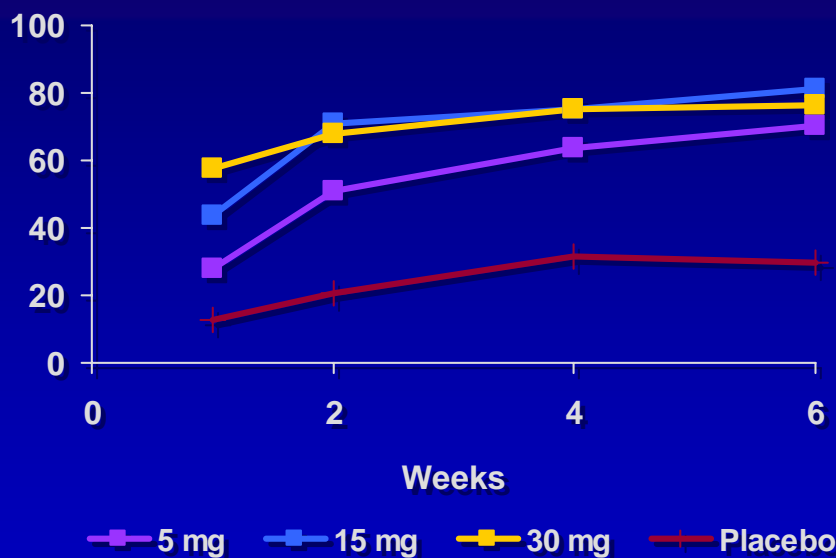




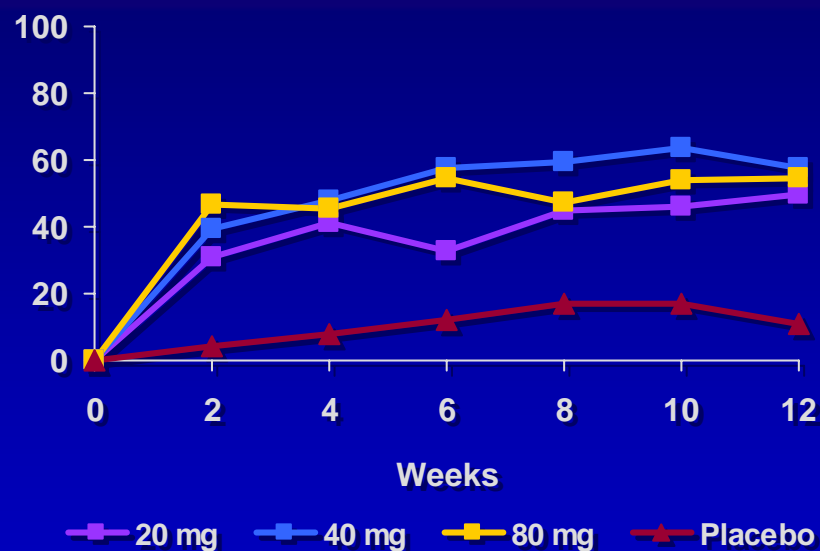
# CP-690,550

## Promising Results in RA

CP-690,550



Humira®



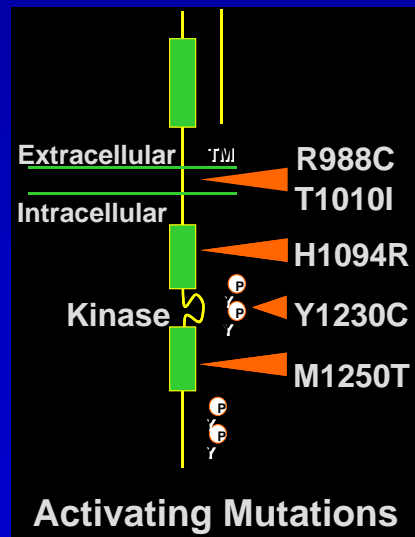
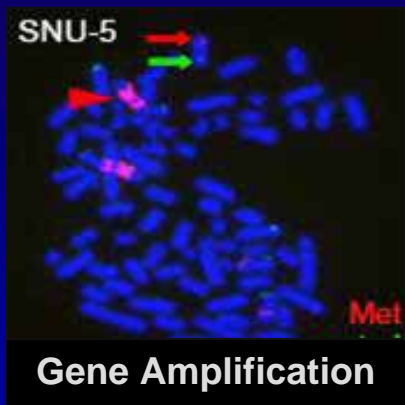
*Patients With ACR20 Response (%)*



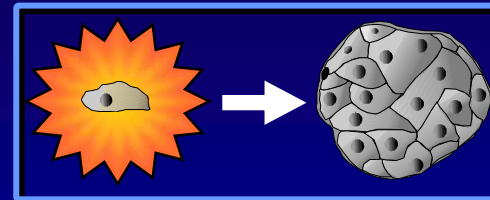
# c-Met Inhibitors

## Offer a New Treatment for Cancer

### c-Met Dysregulation



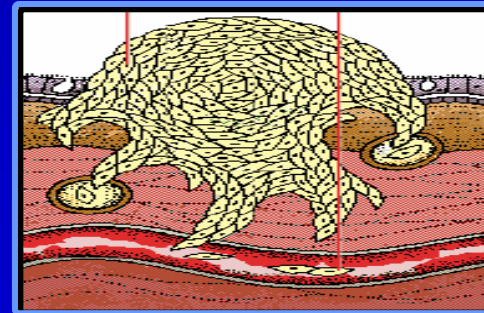
### Altered Tumor-Cell Growth



### Tumor Angiogenesis



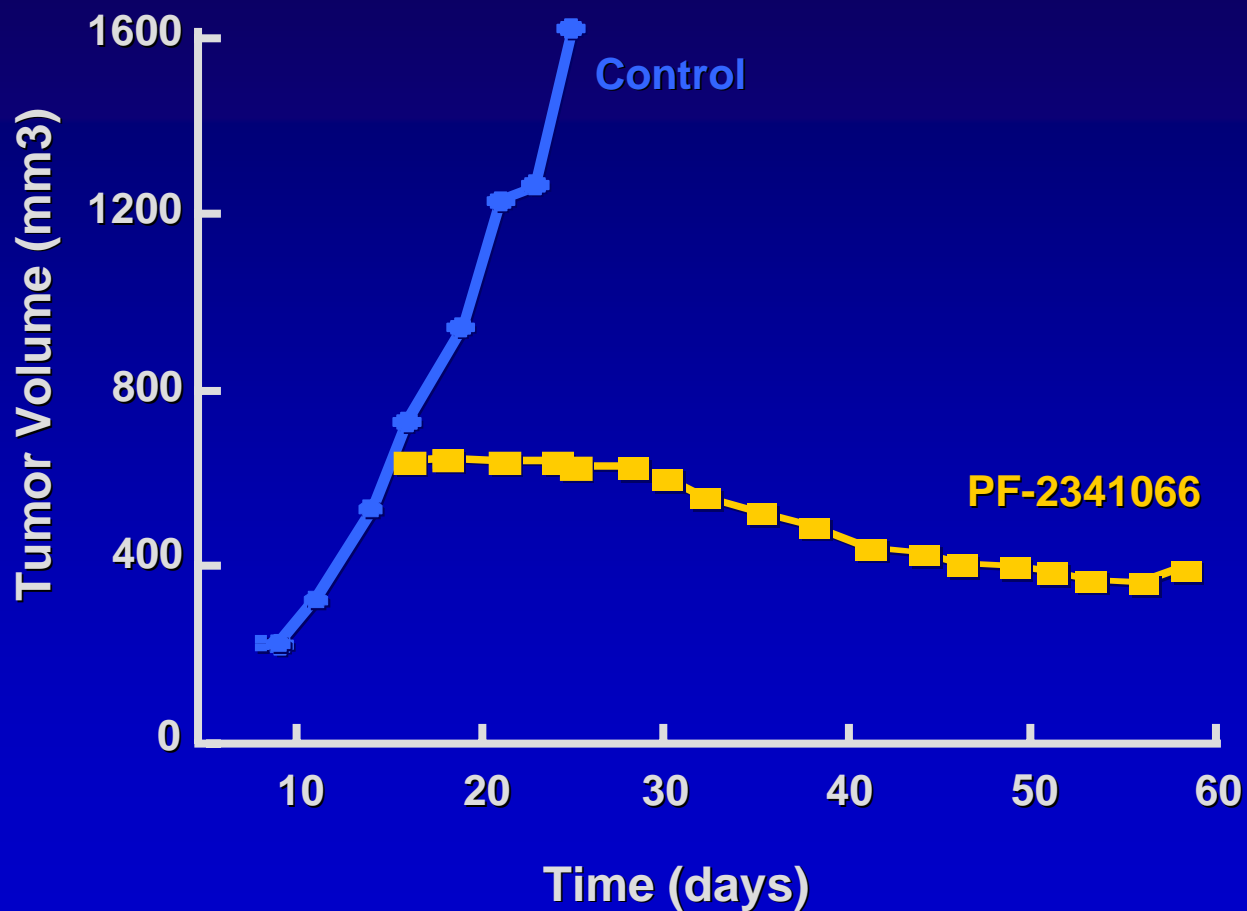
### Tumor Invasion and Metastasis





**PF-2,341,066**

*Significantly Reduces Tumor Burden in Mice*





## **A Winning Strategy**



### **Leading Kinase Collaborations**

- ◆ Academic Institutions - e.g. Lauffenberger and Sorger, MIT, Kinase Pathway Analysis; I. Hunter, MIT, Novel Technology for Kinase-cmpd Analysis
- ◆ Biotech Companies - e.g. Caliper, Biosource, Novel Kinase Screening Technologies
- ◆ Kinase Drug Pfinder program e.g. J. Blenis-Harvard, S6K; J. Liao-B&W Hospital, Rho Kinase; Dr. Tschlis-Tufts, Cot; L. Rameh-BBRI, PI5P4K