

# From Novel Science to Clinical Development: Stories from Small Biotechs – Exelixis, Inc.



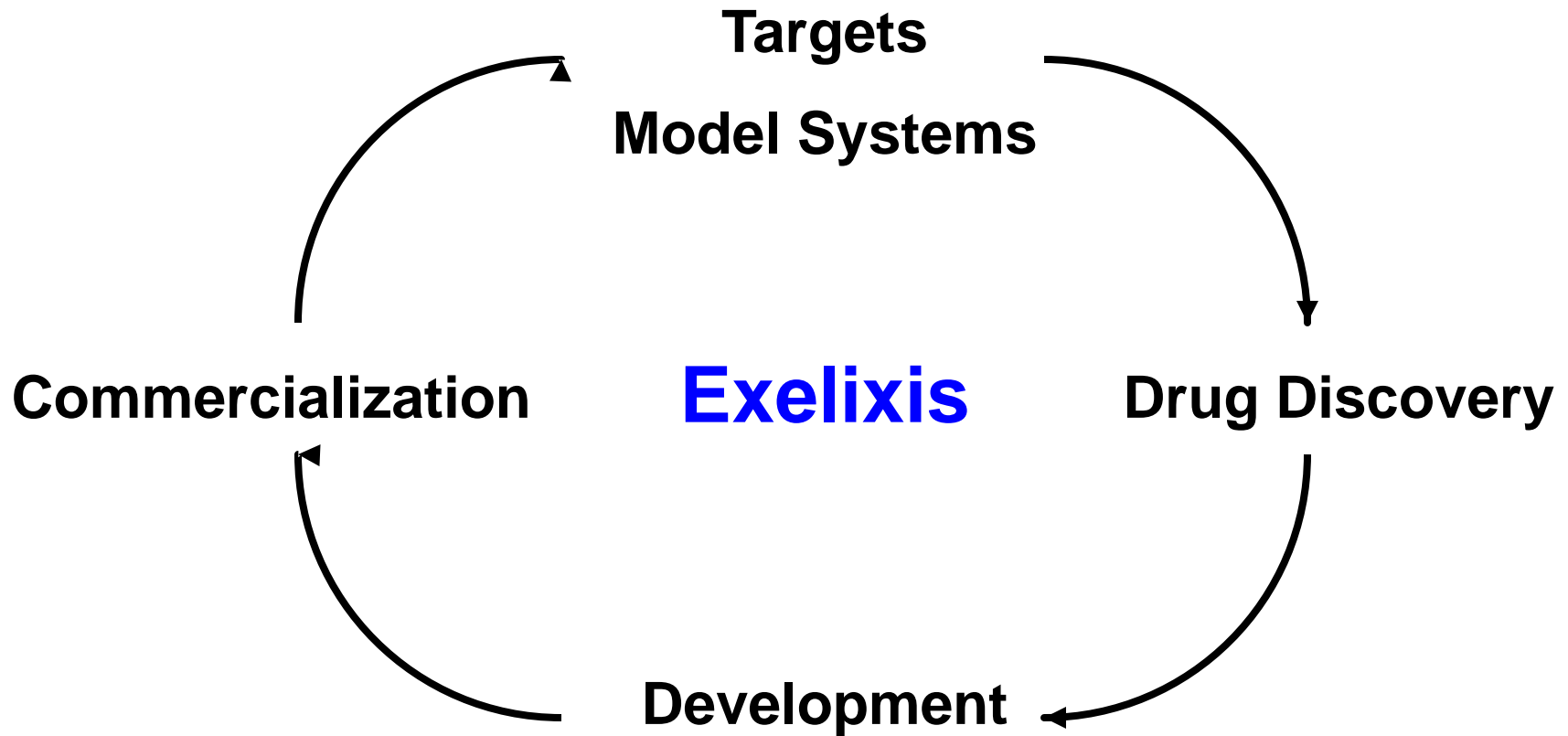
**Gisela Schwab, MD**  
**President, Product Development & Medical Affairs**  
**Chief Medical Officer**

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

**DefinedHealth**  
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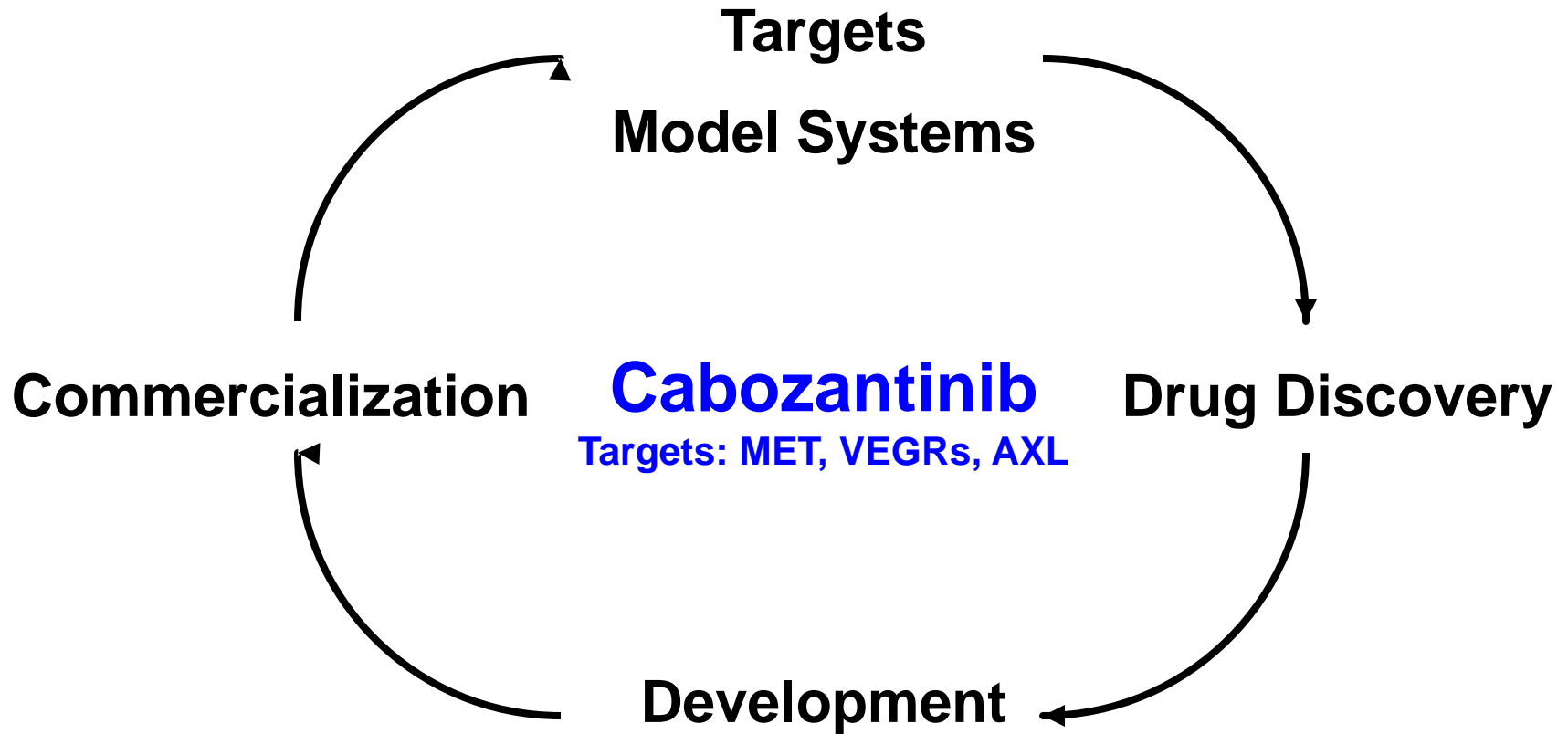


# Integrated Approach



**20 INDs in 8 Year Span**

# Cabozantinib



# Rationale for Cabozantinib in RCC

## Matching Tumor Biology and Target Profile

- Drugs targeting VEGF and its receptors, or the mammalian target of rapamycin (mTOR), are standard therapies in RCC
- Inactivation of the von Hippel-Lindau tumor suppressor protein in clear cell RCC results in upregulation of VEGF, MET, and AXL<sup>1</sup>
- Increased MET and AXL expression associated with poor prognosis and resistance to VEGFR inhibitors in RCC<sup>1,2</sup>

<sup>1</sup> Zhou L et al., Oncogene, 2015

<sup>2</sup> Ciamporcero E et al., Mol Cancer Ther, 2014

# Activity of Everolimus and Axitinib in Patients Who Have Received Prior Sunitinib Only

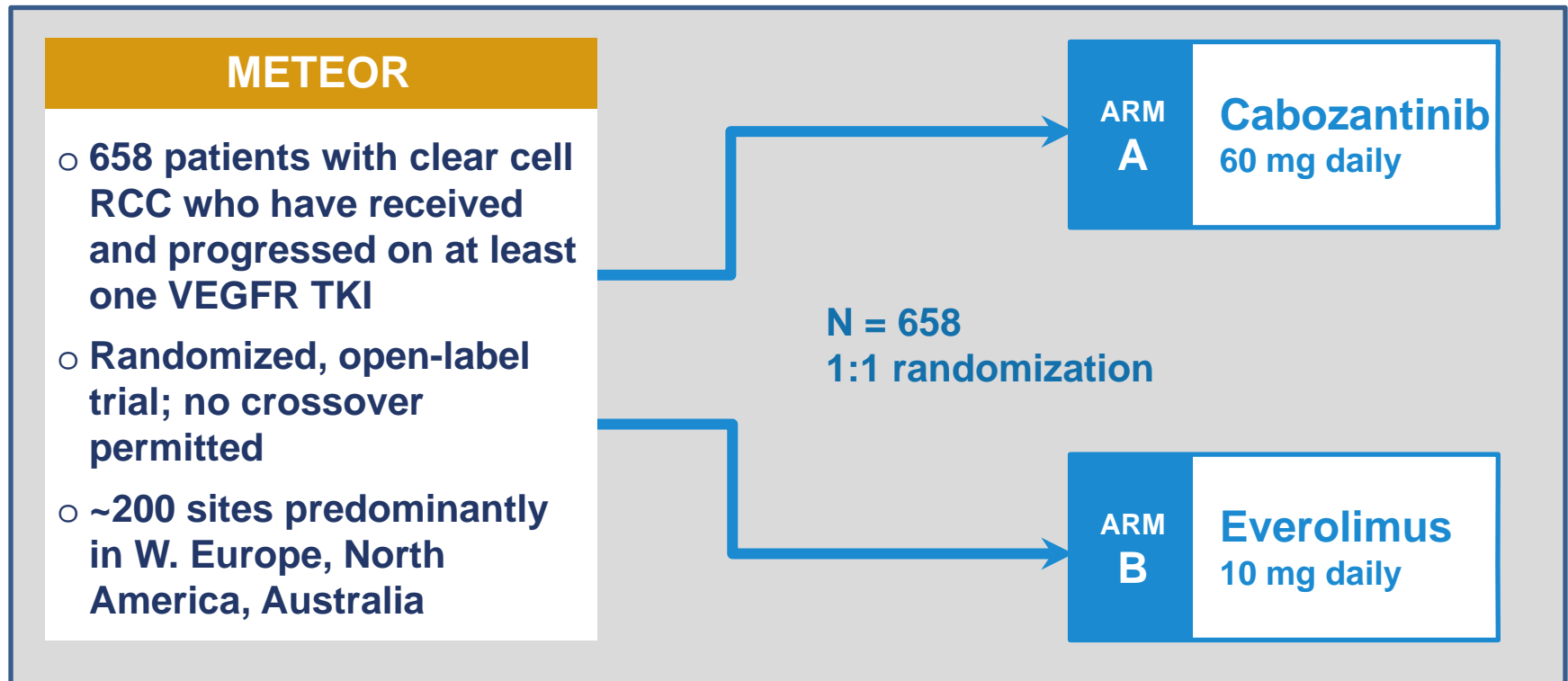
- RCC treatment landscape limited to VEGF(R) or mTOR targeting (2013)
- Majority of agents approved based on PFS benefit
- Activity in previously treated patients limited

	<b>RECORD-1 (everolimus)</b> <i>(N=124, 45% of all pts)</i>	<b>AXIS (axitinib)</b> <i>(N=194, 26% of all pts)</i>
<b>Response Rate</b>	1-2%	11%
<b>PFS (months)</b>	3.9 <sup>1</sup>	4.8
<b>FKSI scores (disease-related symptoms)</b>	Minimal impact vs. placebo <sup>2</sup>	Similar to sorafenib <sup>3</sup>
<b>Discontinuation due to AEs<sup>4</sup></b>	14%	9%

**Illustrates unmet need in second line RCC**

1. Motzer et al, Cancer 2010 2. Beaumont et al, *Oncologist* 2011 3. Cella et al, ASCO meeting 2011  
 4. Updated Package Inserts for everolimus and axitinib (accessed May 13, 2012)

# METEOR Phase 3 Pivotal Trial Design



## Endpoints:

- **Primary:** Progression-Free Survival, conducted once 259 events from the first 375 patients enrolled occurred
  - Statistical modeling assumptions for primary endpoint: 5.0 months for everolimus, 7.5 months for cabozantinib
  - Designed to provide 90% power to detect a hazard ratio (HR) of 0.667 with a two-sided alpha of 0.05
- **Secondary:** Overall Survival and Objective Response Rate

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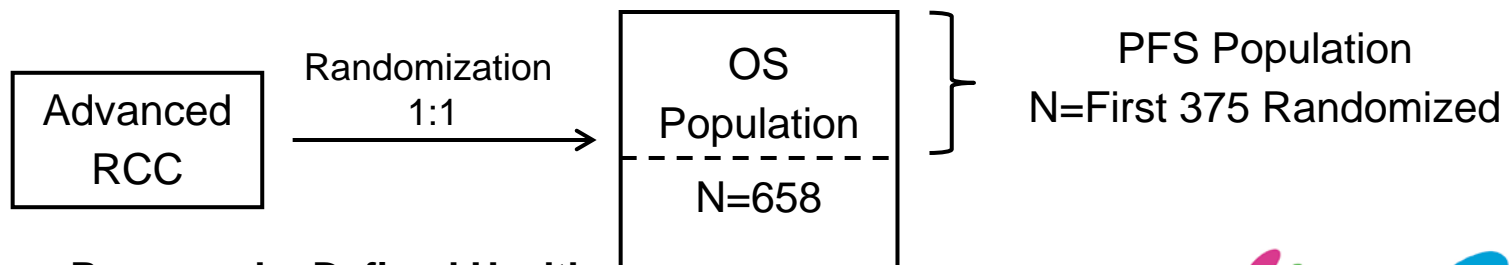
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# Changing Competitive Environment in RCC

- Nivolumab vs everolimus 2<sup>nd</sup>/3<sup>rd</sup> line RCC phase 3 study with Overall Survival endpoint was already ongoing
- Speed and comprehensive efficacy package were key drivers for trial design for cabozantinib in RCC
  - Moved from phase 1 with durable ORR and long PFS to phase 3
  - Powered Phase 3 METEOR trial for PFS and OS
  - PFS as primary endpoint first (n = 375)
  - ORR as secondary endpoint (n = 658)
  - OS as key secondary endpoint with longer follow up



# Competitive Profile and Commercialization

- Cabozantinib improved all three efficacy parameters as compared with everolimus in previously treated RCC
  - Progression free survival (July 2015) – HR 0.58,  $p < 0.001$
  - Objective response rate (July 2015) –  $p < 0.001$
  - Overall survival (February 2016) – highly significant
- Regulatory filings completed in US and EU Dec '15/Jan '16; OS results submitted during review
  - Granted Priority Review and Breakthrough Therapy Designation in US and accelerated review status in EU
- Exelixis plans to commercialize in US – prepared to be launch-ready by April 1, 2016
- Partnership with Ipsen signed Feb 29, 2016 for all territories outside the United States, Canada, and Japan