Changing the Way Cancer is Treated®

Onyx® Pharmaceuticals

March 2011

NASDAQ: ONXX

Safe Harbor and Important Information

Our presentation today will include forward-looking statements relating to the company's financial results, business prospects and the development and commercialization of Nexavar®, carfilzomib, and other potential human therapeutic products that involve a number of risks and uncertainties. Actual events and performance may differ materially from our expectations indicated by these forward-looking statements. Among the factors that could cause actual results to differ materially are the timeline for clinical activity and regulatory approval, results of pending or future clinical trials, competition, dependency on third parties to manufacture our products or conduct our clinical trials, and changes in the status of the company's collaborative relationships, as well as the risk factors listed from time to time in the company's periodic reports filed with the Securities and Exchange Commission. We refer you to these reports, which include the company's 2010 Annual Report on Form 10-K filed for the fiscal year ended December 31, 2010 and its quarterly reports on Form 10-Q. We do not undertake an obligation to update the forward-looking information we are giving today.

Onyx Today: Key Growth Opportunities

- Establish Carfilzomib in Multiple Myeloma
- Drive and Accelerate Nexavar Growth
- Leverage Pipeline Assets
- Maintain Strong Financial Profile

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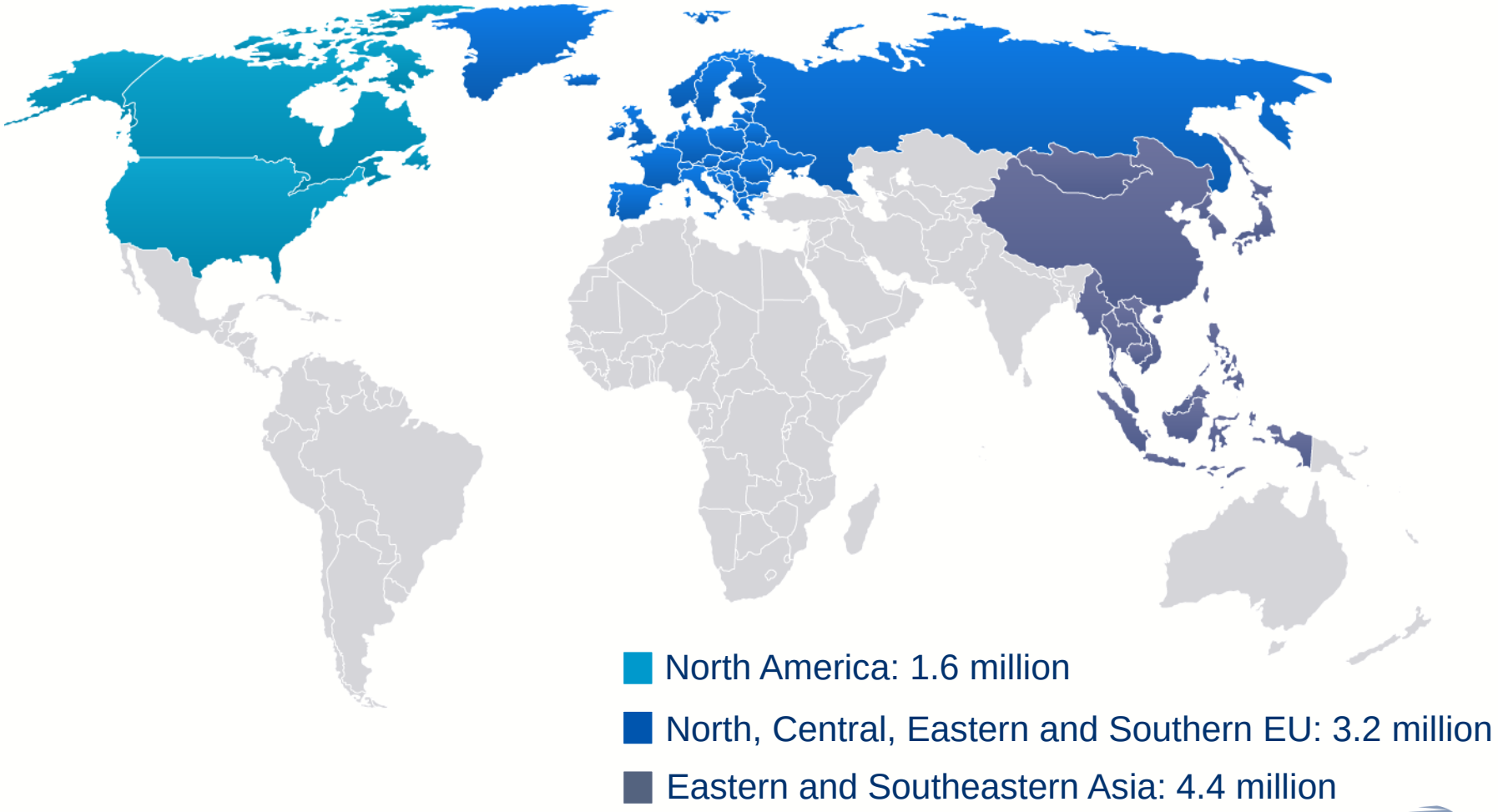
Cancer: Worldwide Incidence

Overtaking Heart Disease as Leading Killer



Source: WHO, 2008

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Fueling Growth with Multiple Platforms

Stage 1
Tyrosine Kinase Inhibitor (TKI) Franchise - Nexavar

Stage 2
Proteasome Inhibitor Franchise – CFZ/0912

Stage 3
Diverse Pipeline

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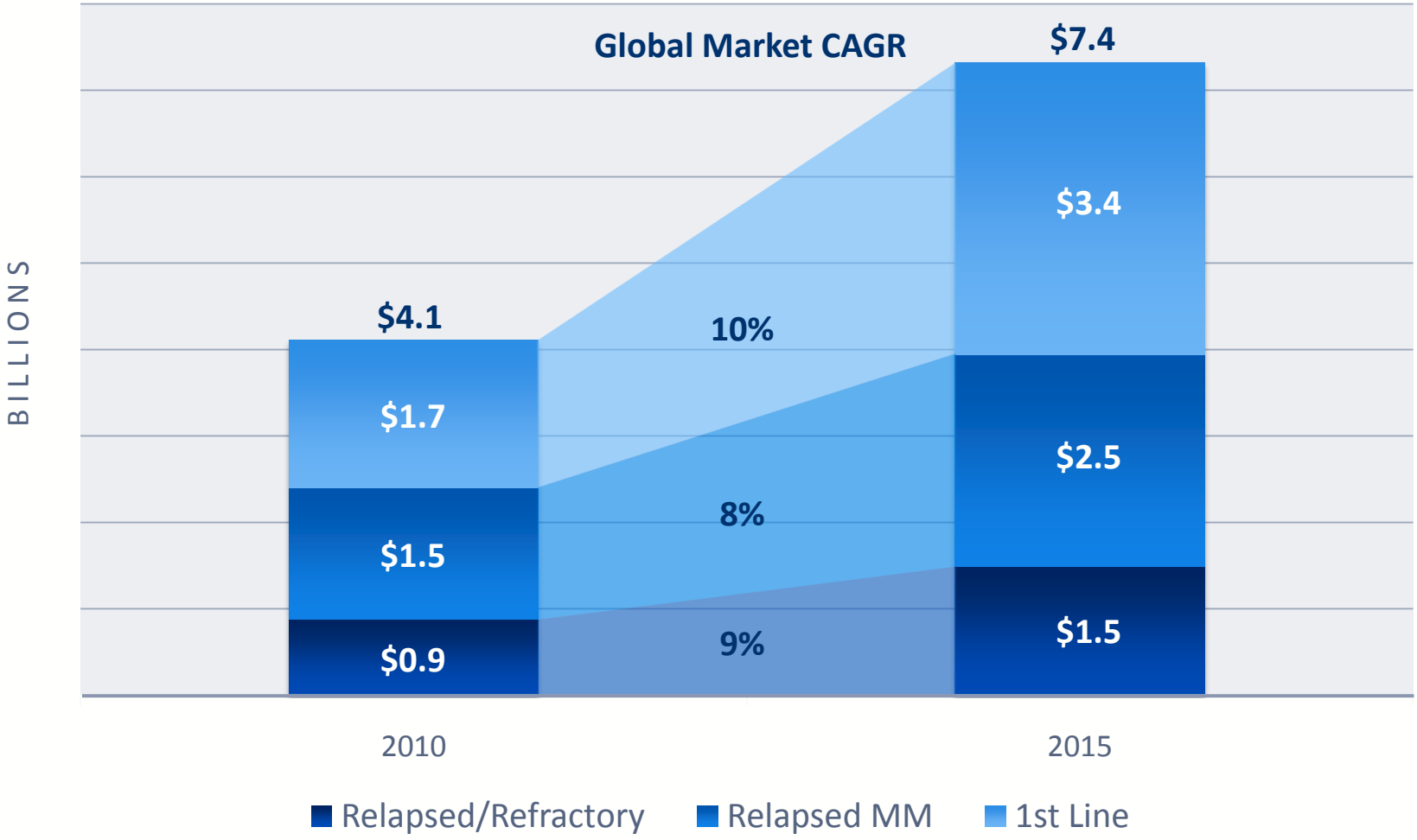
Building a Leading Proteasome Franchise

- Carfilzomib
  - Among the most active agents ever studied in myeloma
    - Overall response rate (ORR); duration of response (DoR); overall survival (OS)
  - Robust activity as a single agent and in combination
  - Promising front-line efficacy – CR/nCRs
  - Safety profile appears to support extended treatment and easy combinability
- ONX 0912
  - Oral delivery may provide convenience for maintenance and indications beyond myeloma

Proteasome Inhibitor Franchise May Exceed $2.5B in Myeloma

Multiple Myeloma Market Expected to Exceed $7 Billion by 2015

PROTEASOME INHIBITORS



Source: Evaluate Pharma

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Carfilzomib: Compelling Clinical Data

Response, Duration, Survival, Safety -- 003-A1

PROTEASOME INHIBITORS

Response-evaluable Population	N=257
Overall Response Rate	24%
Clinical Benefit Rate	34%
Duration of Response	8.3 months*
Overall Survival	15.5 months
Grade 3/4 Neuropathy	0.8%

* Median of PR+ and MR populations

Source: ASH 2010, D. Siegel, et al.

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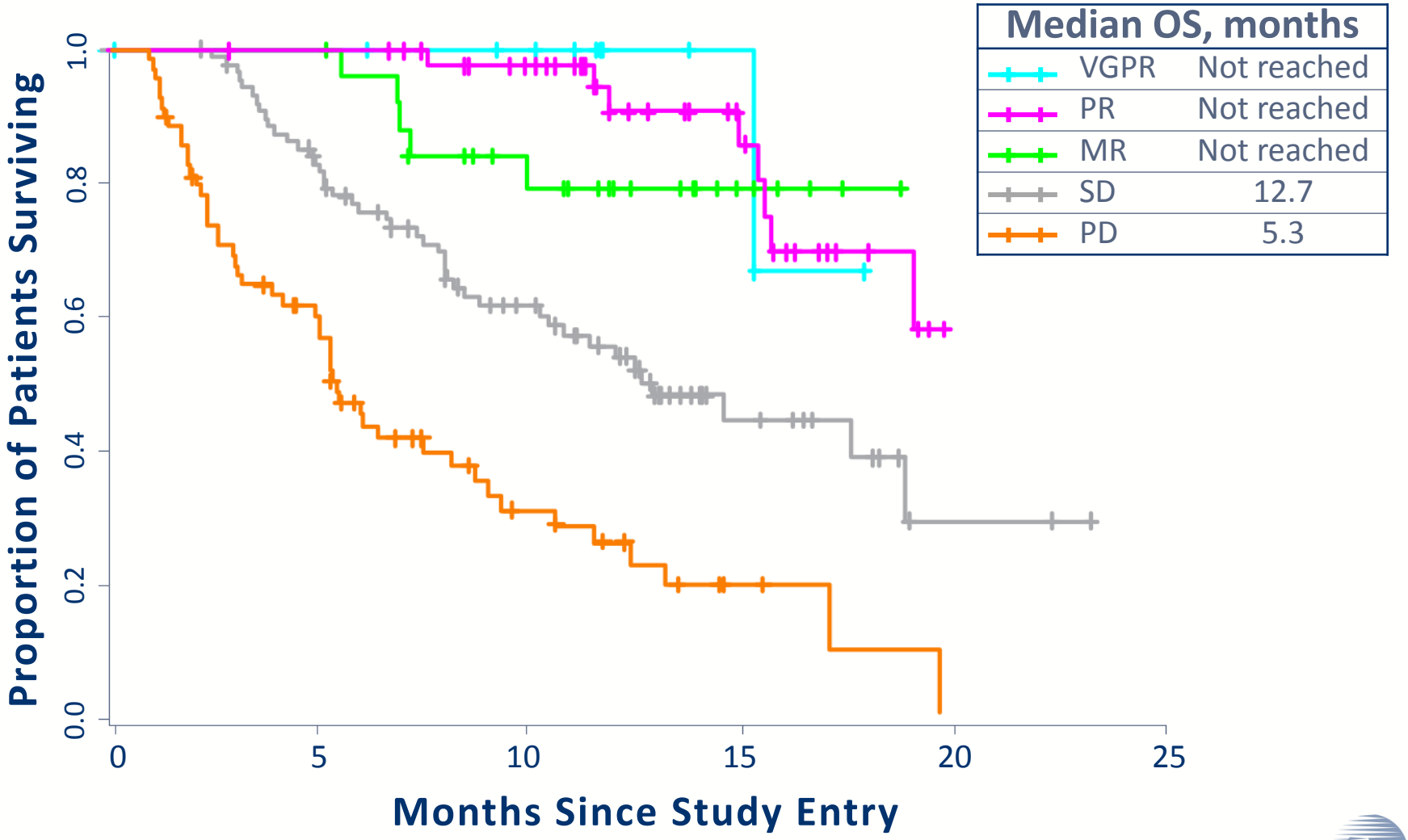
Carfilzomib: Compelling Clinical Data

Overall Survival by Response type -- 003-A1

PROTEASOME INHIBITORS



Source: ASH 2010, D. Siegel, et al.

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Carfilzomib: Interim 1st Line Data

Responses by Cycle

Phase 1/2

Carfilzomib + Lenalidomide + Dexamethasone

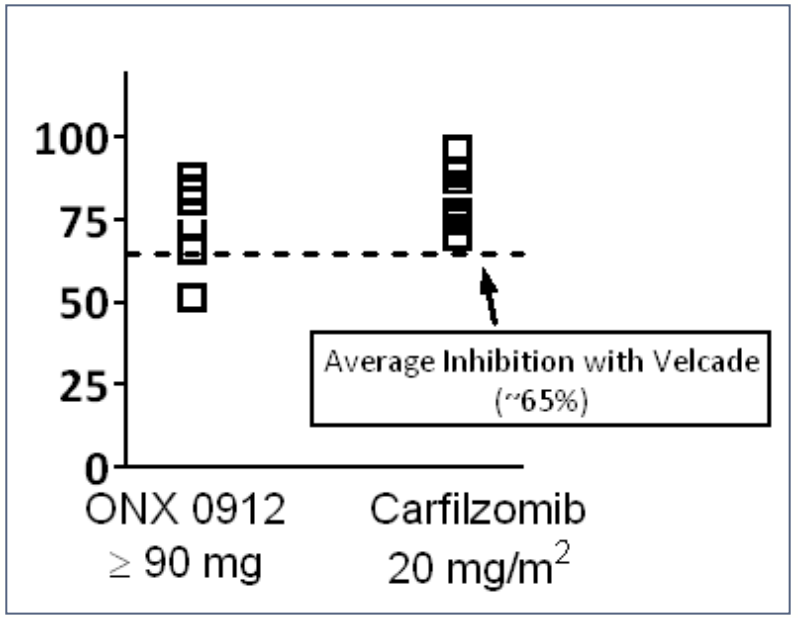
Response, %	2 cycles (n=25)	4 cycles (n=22)	8 cycles (n=12)
sCR/CR/nCR	24	36	**67**
≥ VGPR	40	59	**83**
≥ PR	96	**100**	100

Source: ASH 2010, A. Jakubowiak, et al.

ONX 0912: Expanding the Franchise

- Phase 1 dose-escalation trial in solid tumors *ongoing*
- Dose-intensive oral administration (QD x 5 days)
  - No peripheral neuropathy observed
  - Patients on study for up to 6 months
- Phase 1b/2 trials in myeloma and other hematologic tumors planned
  - Multiple opportunities to develop as oral, convenient agent in myeloma – e.g., maintenance *and* combination settings

% Proteasome Inhibition in White Blood Cells After 1st Dose



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Goal: Transform Multiple Myeloma Into a Chronic Disease

PROTEASOME INHIBITORS

Maintenance

Phase 1
- 0912 -- oral proteasome inhibitor
- Trial ongoing

1st-Line

Phase 1/2
- Combination therapy – 67% CR rate
- Trial ongoing

Relapsed

Phase 3 ASPIRE
- Combination therapy – 75% ORR in "006" study
- Global enrollment underway

Refractory/ Relapsed

Phase 2 003-A1
- Single-agent in heavily pretreated patients
- NDA filing planned

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Key Growth Opportunities

- Establish Carfilzomib in Multiple Myeloma
- **Drive and Accelerate Nexavar Growth**
- Leverage Pipeline Assets
- Maintain Strong Financial Profile

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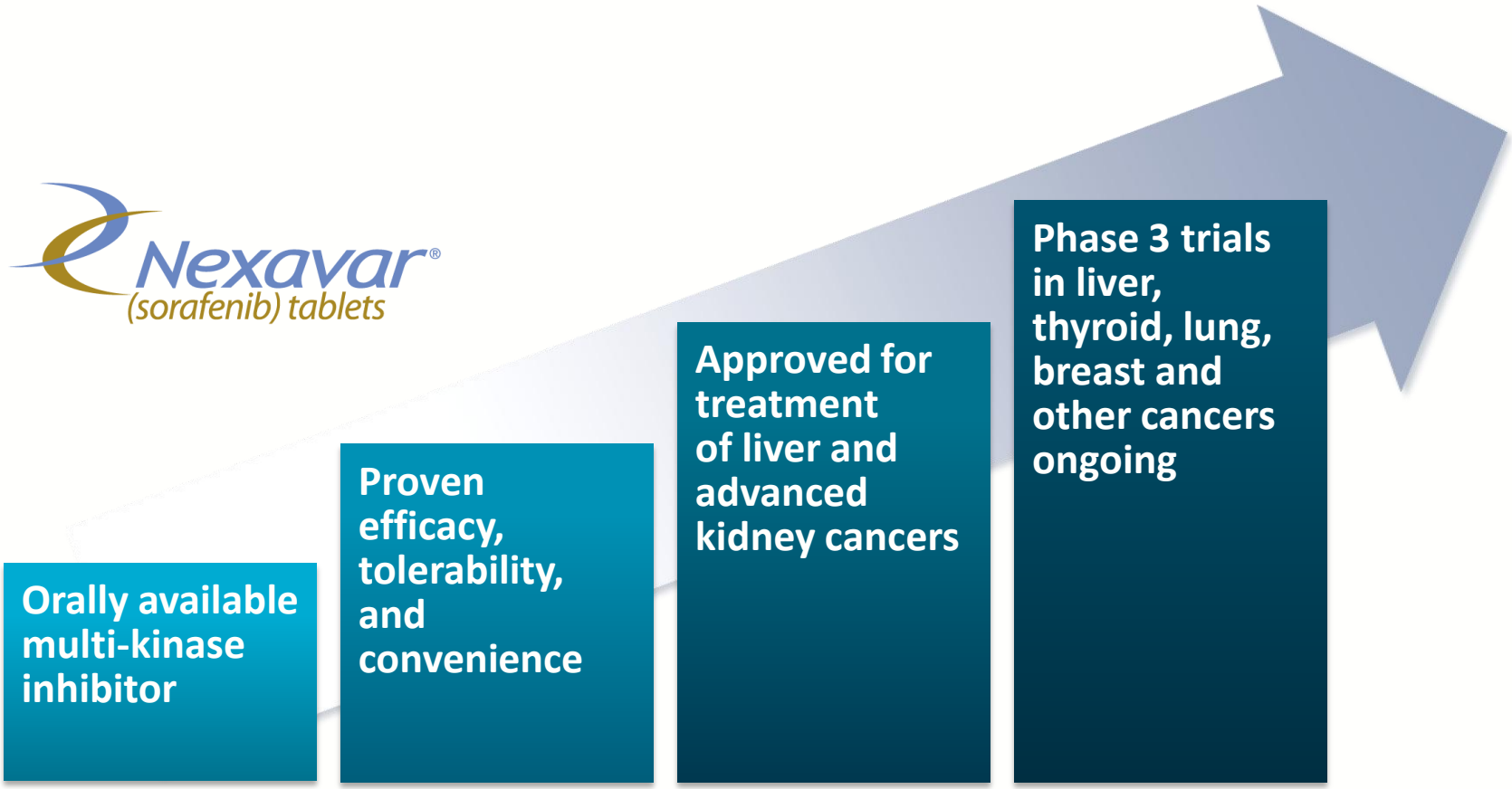
Nexavar: Foundation for Growth Today . . .



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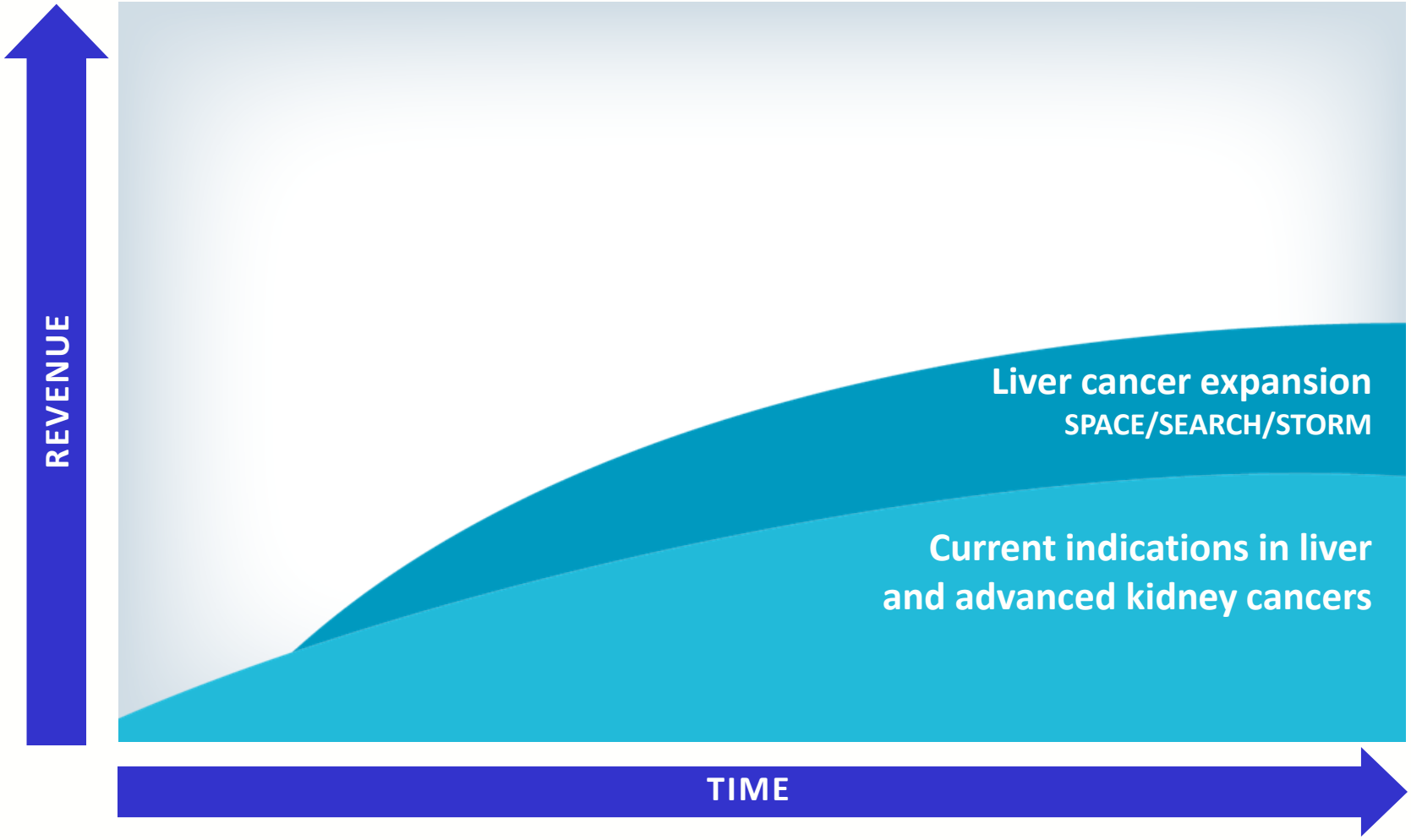
And, Tomorrow:
Further Unlocking Nexavar's Potential



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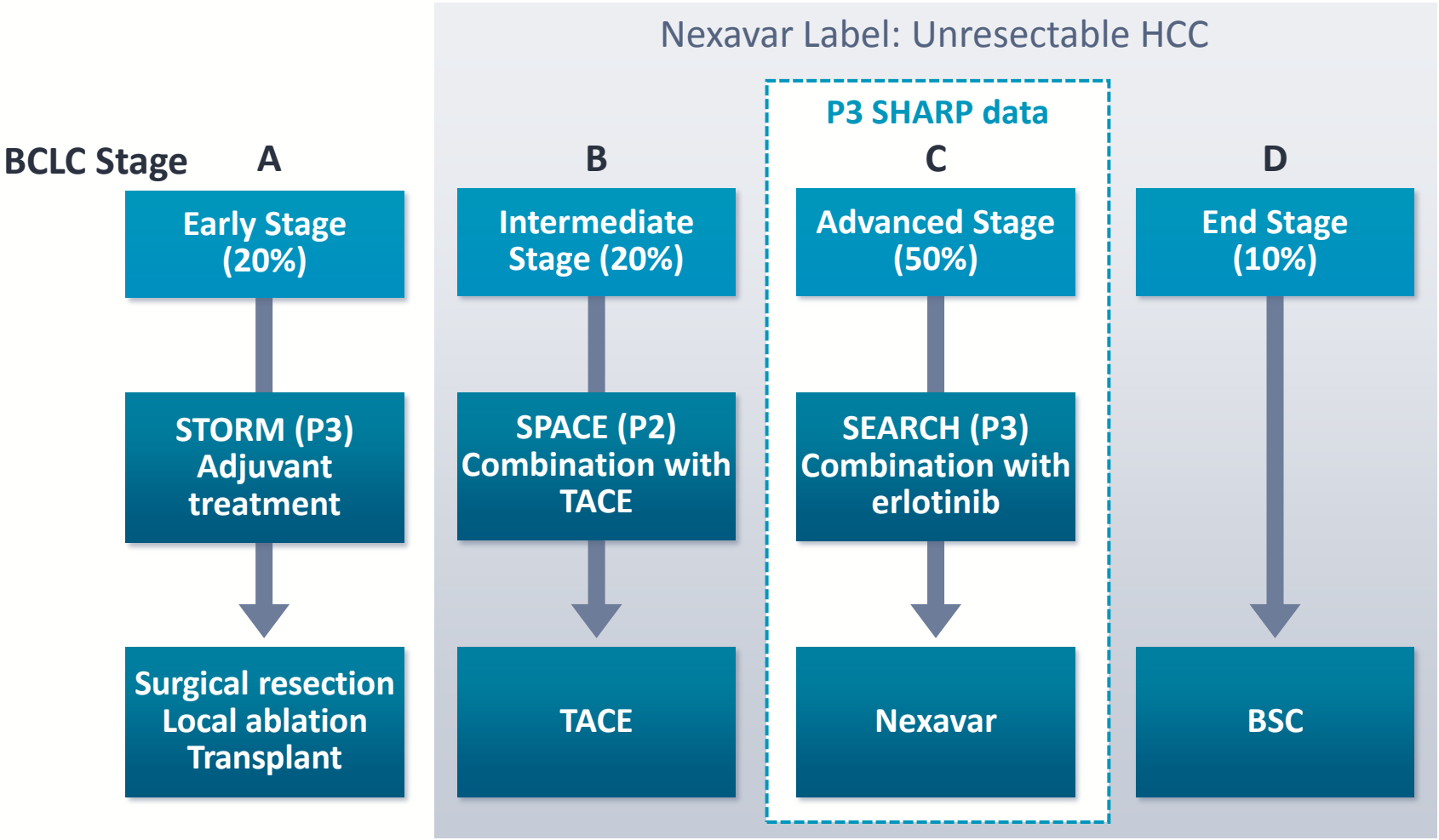
Continued Growth in Liver Cancer

~750,000 New Cases Worldwide Annually



Source: Globocan 2008

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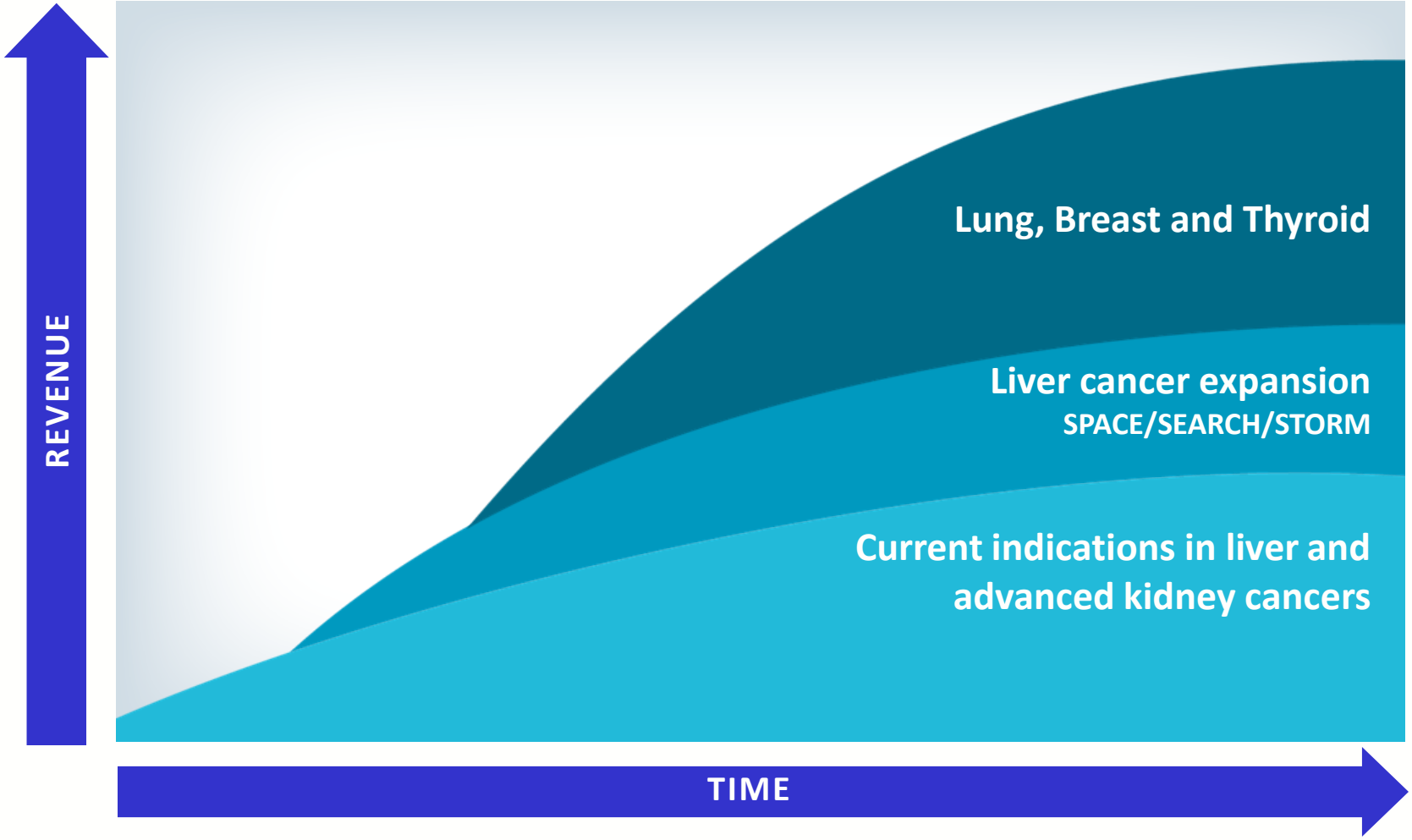
Further Unlocking Nexavar's Potential



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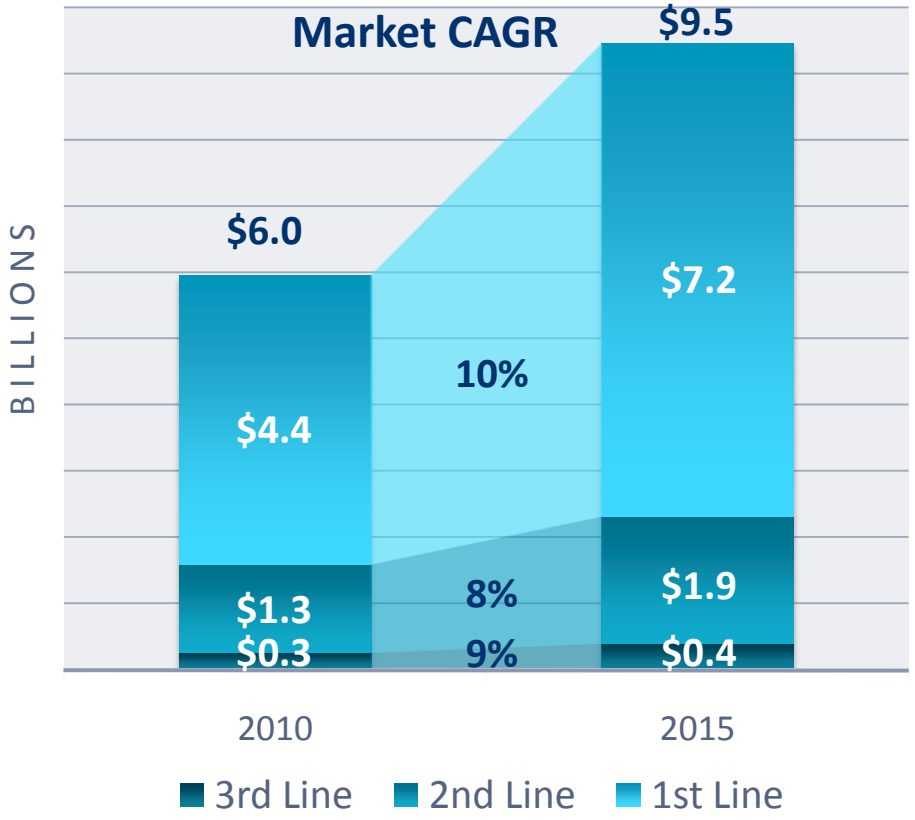
Lung Cancer: Devastating and Deadly

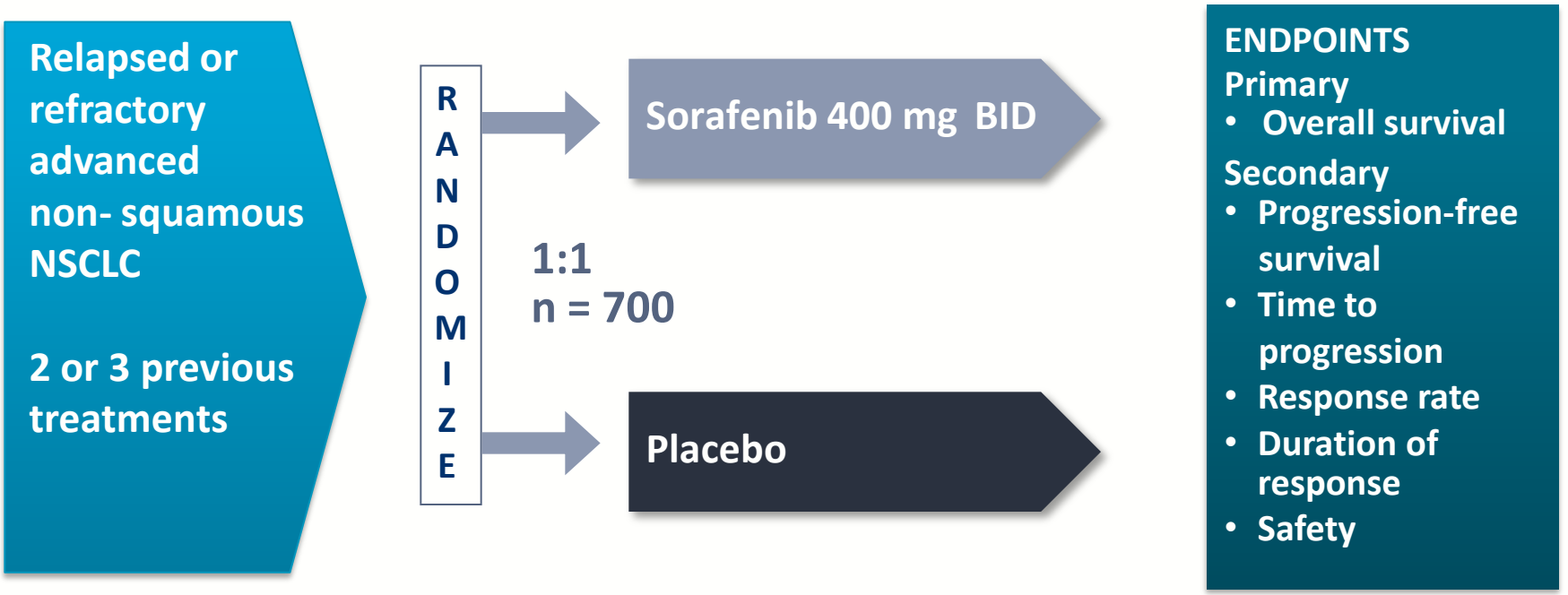
- 1.6M new cases annually
- 1.4M deaths annually
- ~$6B overall worldwide market
- 94% of market in advanced, metastatic setting



Sources: WHO; Globocan 2008

MISSION Phase 3: Enrollment Complete

Nexavar vs. Best Supportive Care in Heavily Pretreated Patients with Advanced Disease



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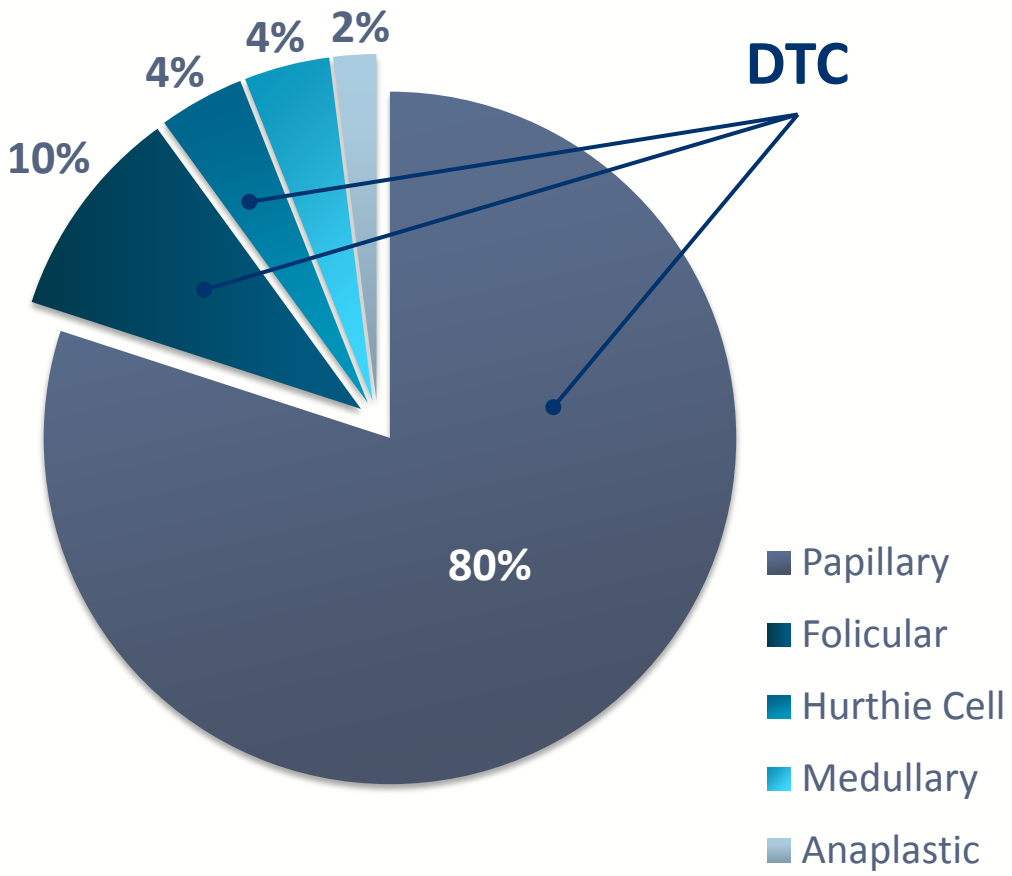
Unmet Need Remains in Thyroid Cancer

- Worldwide incidence exceeds 200K annually
  - Differentiated thyroid cancer (DTC) >90% of patients
- Current market consists of generic chemotherapies
- Opportunity to create $500M-$1B market



Sources: GloboCan 2008; www.cancer.org

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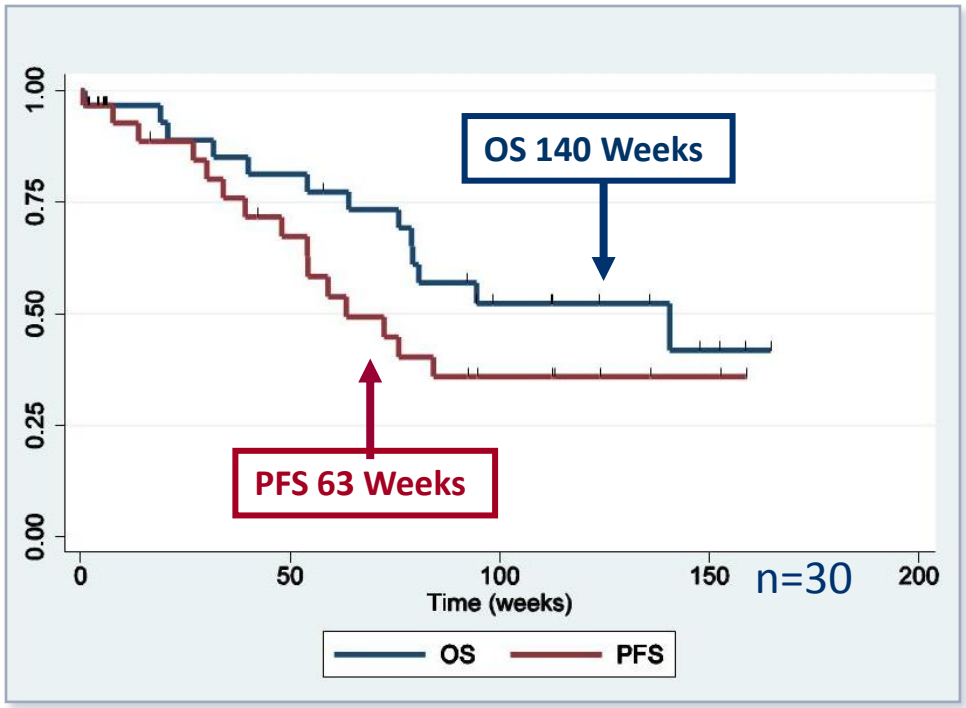
Phase 3 DECISION Trial
Building on Strong Phase 2 Data



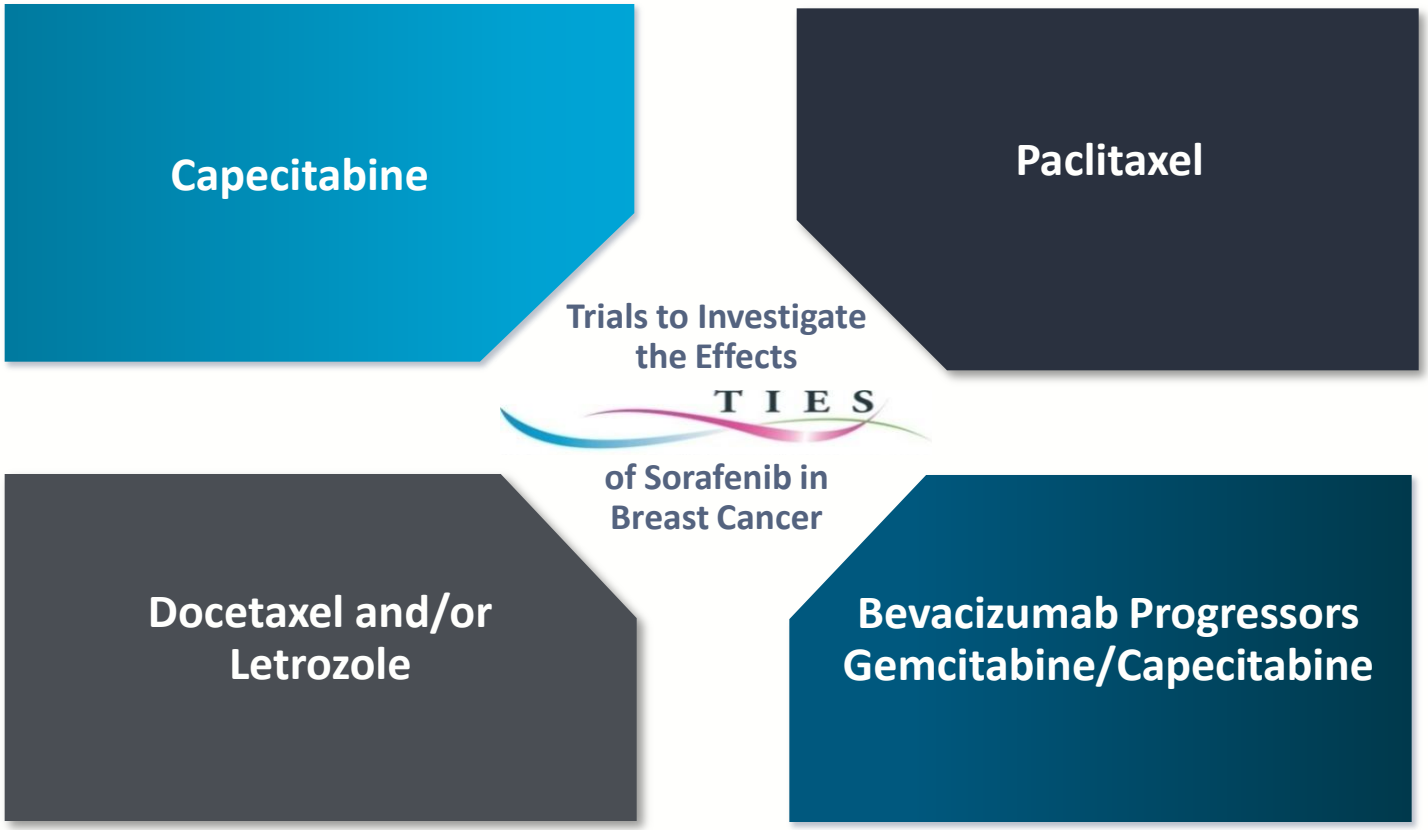
Phase 2 Thyroid Cancer Data (DTC)

- Encouraging clinical results
  - One of *highest* reported response rates and *longest* PFS in this setting
- Phase 3 underway
  - Radioactive iodine refractory DTC
  - Enrolling 380 patients globally at over 80 sites
  - Primary endpoint: Progression-Free Survival

Source: ECCO/ESMO 2009 , M. Brose, et al.

TIES Program
Advancing Nexavar in Breast Cancer

Four Randomized Phase 2b Combination Trials in Advanced Breast Cancer



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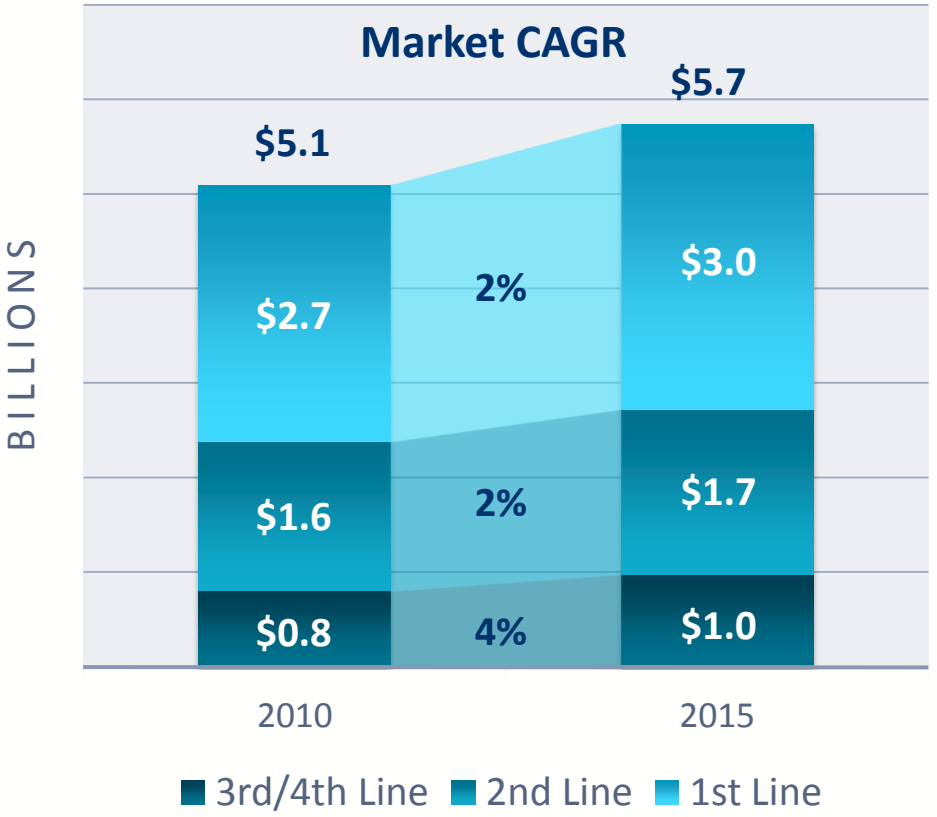
Potential to be *Only* Targeted Agent in HER2-negative Metastatic Breast Cancer

- 458,000 deaths worldwide annually
  - U.S. 40,000 deaths annually
- $5B market in metastatic setting
  - Metastatic market predicted to grow from 37% to 45% in next five years



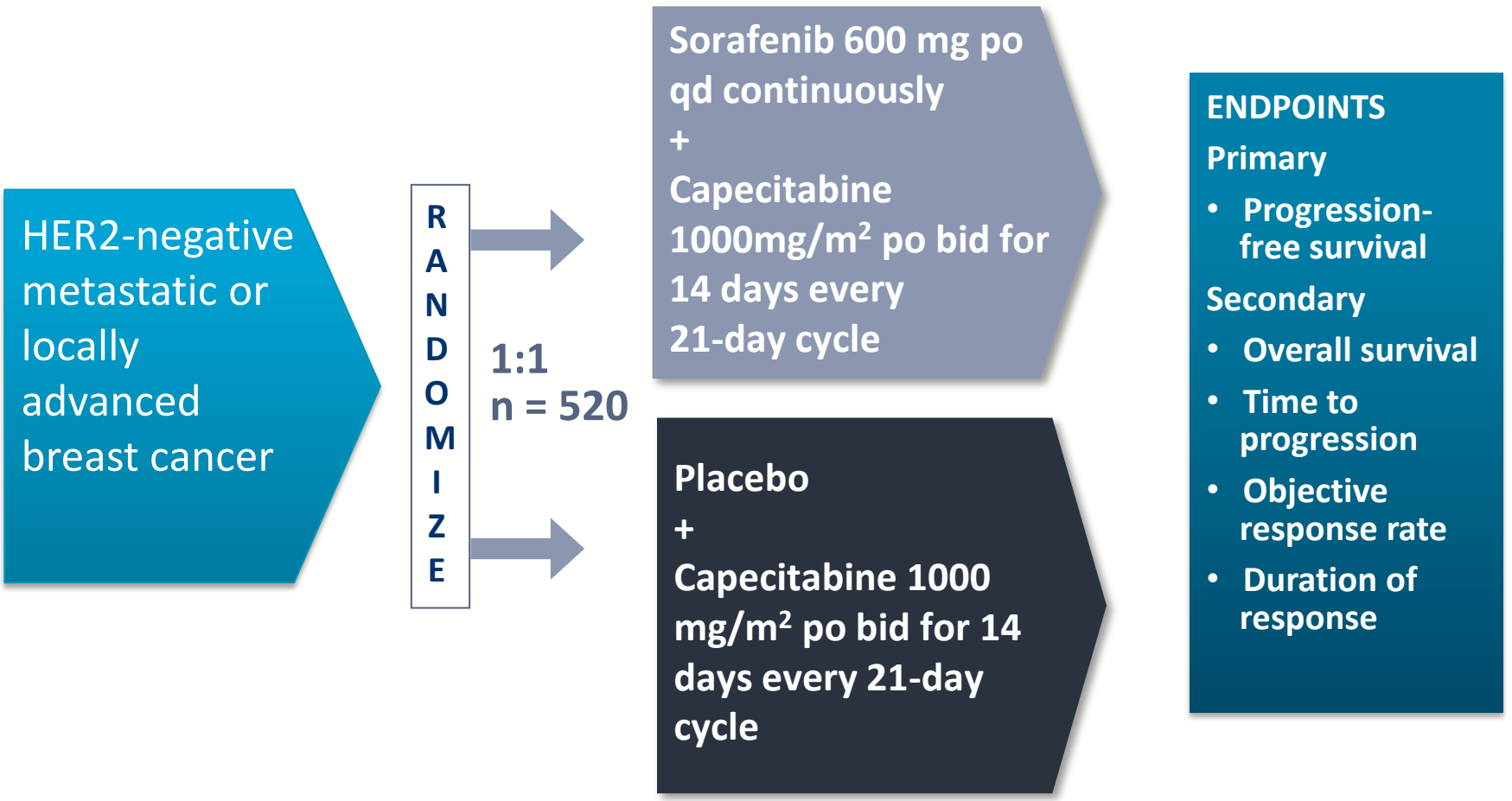
Sources: WHO; Globocan

Capecitabine Study Efficacy Results

Endpoint	Nexavar + CAPE	Placebo + CAPE	Hazard Ratio (95% CI)	p- Value
PFS	6.4 months	4.1 months	0.576	0.0006
TTP	6.8 months	4.1 months	0.562	0.0005

74% improvement in PFS

Phase 3 RESILIENCE Trial Enrolling



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Key Growth Opportunities

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- **Leverage Pipeline Assets**
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Building Opportunities for Our Future

ONX 0801	Thymidylate Synthase Inhibitor
ONX 0803/0805	JAK Inhibitors (option rights)
ONX 0912	Oral Proteasome Inhibitor
ONX 0914	Immunoproteasome Inhibitor

Key Growth Opportunities

- Establish Carfilzomib in Multiple Myeloma
- Sustain and Increase Nexavar Growth
- Leverage Pipeline Assets
- Maintain Strong Financial Profile

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Onyx: Strong Growth and Generating Cash

- 2010 Sales of $934M represents 11% year-over-year growth
- ~$3B in cumulative Nexavar sales since initial approval
- Nexavar delivering positive cash flow contribution
- Strong cash position of $578M at year-end 2010

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2011 Events and Key Priorities

Carfilzomib

- U.S. regulatory filing as early as mid-year
- Continued momentum in clinical program
- Possible P3 data in EU registration trial (FOCUS) 1H12

Nexavar

- South Korean reimbursement in liver cancer
- P2 breast cancer data in Avastin-progressors (TIES)
- Nexavar + TACE P2 data in liver cancer (SPACE)
- Complete enrollment in P3 thyroid cancer (DECISION)
- Possible P3 data in advanced lung cancer (MISSION)

Pipeline

- 0912, 0801, 0914 ongoing evaluations
- Options on 0803/0805

Financial

- Maintain strong financial profile

Changing the Way Cancer is Treated®

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Thank You

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