

Ligand Pharmaceuticals Incorporated

“Shots on Goal” Portfolio
2011 Ligand Analyst Day Workshop

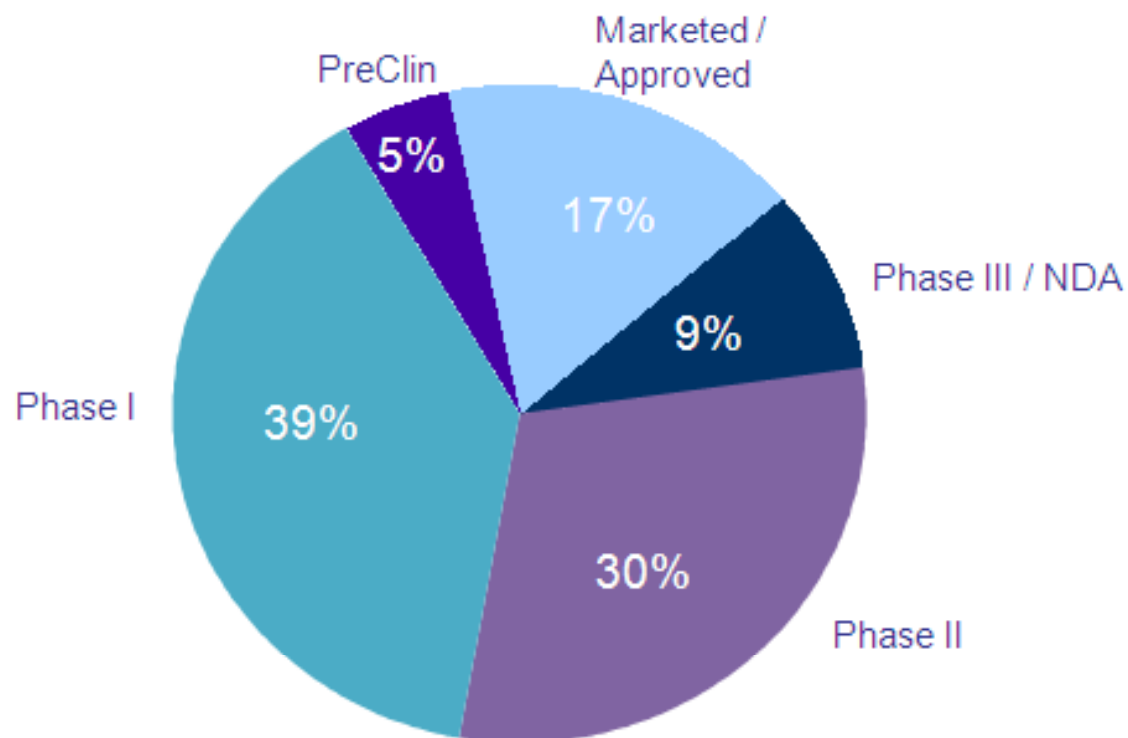
The “Shots on Goal” Model at Ligand

- The low ROI for biopharma R&D suggests that sharing the cost and risk of R&D through partnering is a preferred route to meaningful ROI
- Ligand has assembled the largest portfolio of partnered assets of any company in its biopharma peer group
 - Now over 50 assets fully funded by partners
- A focus on assembling partnered assets allows Ligand to run a very lean cost structure without significantly high R&D costs
- Coupled with our cost structure, this portfolio of assets gives Ligand a reasonable probability of becoming a sustainably profitable biopharma business



Industry Unique Partnered Asset Portfolio

Over 50 Partnered Programs



- Over 25 different partners
- Over 10 different therapeutic areas
- Over half of the portfolio is PII or later
- Ligand estimates that partners spend over \$150M per year on this portfolio
- Significant quarterly news flow

Portfolio Asset Highlights

- Beyond Promacta, there are multiple-late stage programs in the portfolio that offer Ligand opportunities for substantial future revenue growth

Onyx *Carfilzomib*

- PIII/NDA
- Captisol-enabled proteasome inhibitor for multiple myeloma
- Ligand eligible to receive milestones, royalties and material sales revenue
- Potential 2012 launch

Pfizer *Aprala*

- PIII
- Combination of Viviant and Premarin for menopausal symptoms
- Ligand eligible to receive milestones and royalties
- Potential 2013 launch

Merck *Captisol Program*

- PII
- Captisol-enabled undisclosed program
- Ligand eligible to receive milestones and material sales revenue
- Potential 2013 launch

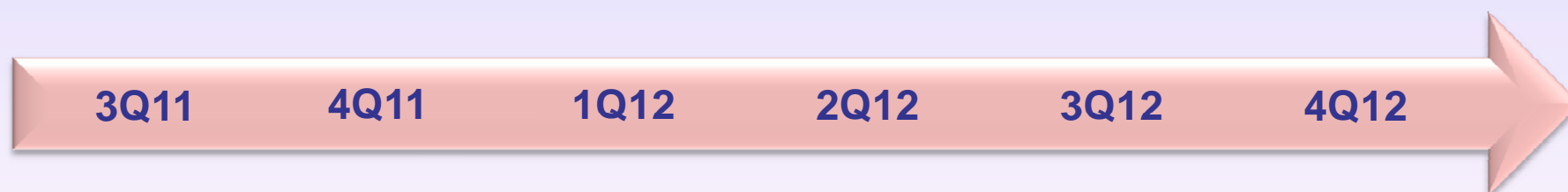
Merck *CXCR2*

- PII
- Novel CXCR2 antagonist for COPD
- Ligand eligible to receive milestones and royalties
- Potential 2015 launch

Over 40 Other Programs from Preclinical to Phase III Represent Another Potential Revenue Wave

Quality Portfolio News Flow

The Size of the Portfolio Generates Regular, *Meaningful*, Quarterly News Flow



- New Territory Launches
- New Product Launches
- NDA Approvals
- NDA Filings
- PIII Data Releases
- PIII Trial Initiations
- PII Data Releases

Promacta

Viviant

Carfilzomib

IL-9

Merck Captisol

Nexterone

Aprala

CXCR2

CDK

Clopidogrel

Others

Deep Partner Relationships

Ligand has Multiple Broad and Diverse Relationships
With Premier Pharma Companies



- PII CXCR2 (COPD)
- PII CDK Inhibitor (oncology)
- PI BACE (Alzheimers)
- Captisol Program



- Promacta ITP
- Promacta HepC
- Promacta Oncology
- LGD 4665/GSK 3521



- Viviant
- Aprela
- Marketed Captisol Products

Ligand Business Development

Ligand business development is the core engine that drives the shots on goal model
-Acquisitions – Licensing – Spin Offs - Alliance Management-

