



# OMT, Inc. Acquisition Conference Call December 17, 2015

**NASDAQ: LGND**

# Safe Harbor Statement

*The following presentation contains forward-looking statements regarding Ligand's prospects, plans and strategies, drug development programs and collaborations. Forward-looking statements include the expected completion of the acquisition of OMT and the timing thereof, the benefits of the acquisition to Ligand, the expected revenues from OMT and other financial projections and guidance and Ligand's expectation that the acquisition will be accretive to revenues and adjusted EPS, the number of partners to be added to Ligand's portfolio and the potential clinical development of such partners' antibodies using the OMT platform, intellectual property protection of the OMT platform, expectations regarding our and our partners' research and development programs, and other statements including words such as "will," "should," "could," "plan," etc. Actual events or results may differ from Ligand's expectations. The forward-looking statements made in the presentation are subject to several risk factors, including, that the various closing conditions for the OMT acquisition may not be satisfied or waived, Ligand's reliance on OMT's partners for upfront, milestone, annual maintenance and royalty payments and risks related to OMT's partners' ability to terminate their partnership agreements, which may reduce the number of commercial partners Ligand adds to its portfolio, the failure of one OMT partner's program may impact other OMT partner's decision to continue using the OMT platform, Ligand's ability to retain Dr. Buelow after the acquisition is complete, risks inherent in clinical development by OMT's partners, including through use of the OMT platform, exposure to unknown liabilities as a result of the acquisition, the ability of OMT and its partners to obtain, maintain and successfully enforce adequate patent and other intellectual property protection and the ability to operate their businesses without infringing the intellectual property rights of others, and other risks and uncertainties described in its public filings with the Securities and Exchange Commission, available at [www.sec.gov](http://www.sec.gov). Additional risks may apply to forward-looking statements made in this presentation.*

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*Our trademarks, trade names and service marks referenced herein include Ligand and Captisol. Each other trademark, trade name or service mark appearing in this presentation belongs to its owner. The process for reconciliation between non-GAAP financial numbers presented on slide 25 and 26, and the corresponding GAAP figures is explained in the footnotes on that slide and in our earnings press release dated, November 9, 2015.*

# Agenda

- 1) Acquisition Highlights and Value Drivers John Higgins, *CEO*
- 2) OMT – Company Overview and Technology Platform Matt Foehr, *COO*
- 3) Financial Outlook and Upcoming Events Matt Korenberg, *CFO*

# *Acquisition Highlights and Value Drivers*

# OMT – Open Monoclonal Technology, Inc.

- Leader in genetically engineered transgenic animals for human antibody discovery
  - Founded in 2008 by Roland Buelow, PhD, a world-renowned antibody scientist
  - Financed by Essex Woodlands
  - Business based on transgenic animal platform licensing to biopharma globally
- Three complementary, globally branded platforms
  - OmniRat<sup>®</sup>, OmniMouse<sup>®</sup> and OmniFlic<sup>™</sup> - delivering OmniAb<sup>™</sup> antibodies
  - Only rat-based platforms for mono-specific and bispecific antibodies in the industry
  - Believed to be only company with two species
- Licensed the technology to 16 pharma and biotech companies
- Virtual operation with lean cost structure
  - Animal breeding and sourcing done by world-leading vendors in the US and Europe
  - OmniAb antibody discovery performed by proven CROs in the US, Europe and Asia
  - Virtual operation with three employees in the US

# OMT Opportunity

- Proven Business Model
  - Profitable, cash-flow positive company
  - Potentially highly lucrative portfolio of licenses
  - Strong science and technology to drive future deal making
- Excellent Strategic Fit
  - Technology licensing business similar to Captisol model
  - A few employees and low costs to manage the business, partners and licensing
  - Deal accretive to Ligand's short and long-term financials
- Diversifies and Strengthens Ligand
  - Initially adds 16 shots on goal to portfolio
  - Existing deals could generate over 30 clinical candidates over next 10 years
  - Major new technology that will stand next to Captisol for new licensing
  - Significantly extends Ligand's potential IP horizon for revenue generating assets

# Major Value Drivers for OMT Acquisition

- Financial Contribution
  - Projected to be accretive to revenues and adjusted EPS
  - Potential for significant financial contribution to Ligand through future royalties
  - A strong platform for Ligand to seek new licenses and partnerships
- Portfolio Expansion
  - Major addition of high quality partners and fully-funded shots on goal
  - Brings to Ligand 16 new shots on goal
  - With OMT, Ligand will have more than 140 fully-funded programs and more than 81 partners
- Technology Diversification
  - OmniAb is a broad and robust technology platform and is a key resource used by biopharma companies to discover new biologic drugs
  - A new technology pillar for Ligand's business, standing alongside the Captisol drug-formulation technology
- Royalty Extension
  - Significant extension of potential patent protection period and royalty terms for Ligand-partnered programs
  - Patents for OMT technology run through 2033, but each newly discovered antibody may be the basis for its own novel intellectual property, resulting in patents for each antibody on a drug-by-drug basis that could extend past 2040

# Antibody Prescription Medicines


## 2014 Global Sales

### 5 of Top 10 Selling Drugs are Antibodies

<i>Drug</i>	<i>Therapeutic Area</i>	<i>2014 sales (\$ billions)</i>
Humira	Autoimmune	\$12.9
Sovaldi/Harvoni	Hepatitis C	\$10.3
Remicade	Autoimmune	\$9.8
Enbrel	Autoimmune	\$8.9
Lantus	Diabetes	\$8.4
Abilify	CNS Disorders	\$8.2
MabThera/Rituxan	Cancer	\$7.5
Seretide/Advair	Asthma	\$7.0
Avastin	Cancer	\$7.0
Herceptin	Cancer	\$6.9

### Top 10 Antibodies Sold \$57 B in 2014

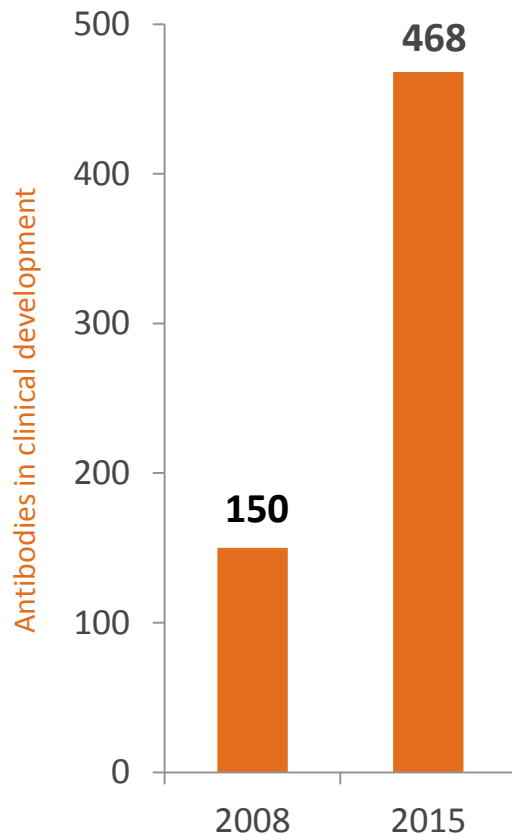
<i>Drug</i>	<i>Therapeutic Area</i>	<i>2014 sales (\$ billions)</i>
Humira	Autoimmune	\$12.9
Remicade	Autoimmune	\$9.8
MabThera/Rituxan	Cancer	\$7.5
Avastin	Cancer	\$7.0
Herceptin	Cancer	\$6.9
Lucentis	Ophthalmology	\$4.3
Soliris	Orphan Diseases	\$2.2
Stelara	Autoimmune	\$2.1
Tysabri	Autoimmune	\$2.0
Erbix	Cancer	\$1.9

 Antibody-based medicine

Note: Lucentis is an antibody fragment

Source: [www.pharmalive.com](http://www.pharmalive.com)

# Antibodies in Clinical Development

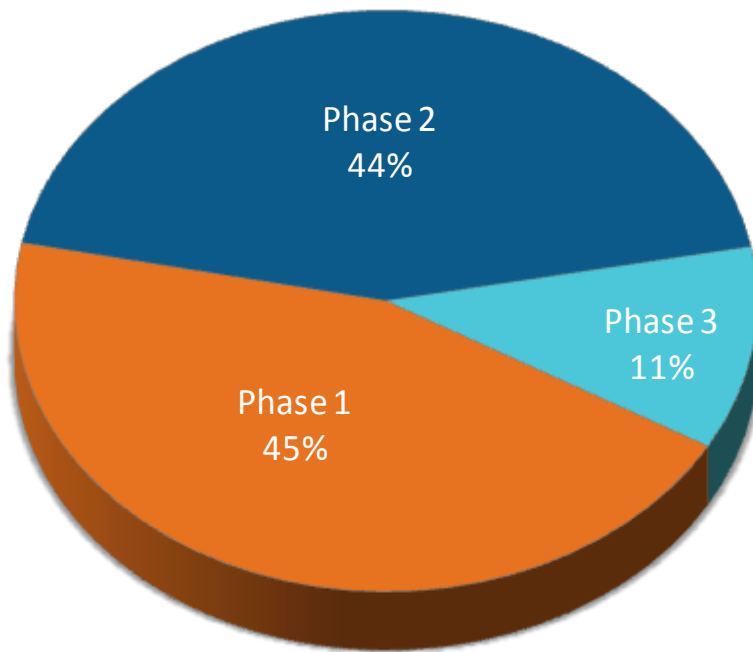


- Antibodies are a promising and rapidly growing category of therapeutic research
- Number of antibodies in clinical development has tripled since 2008

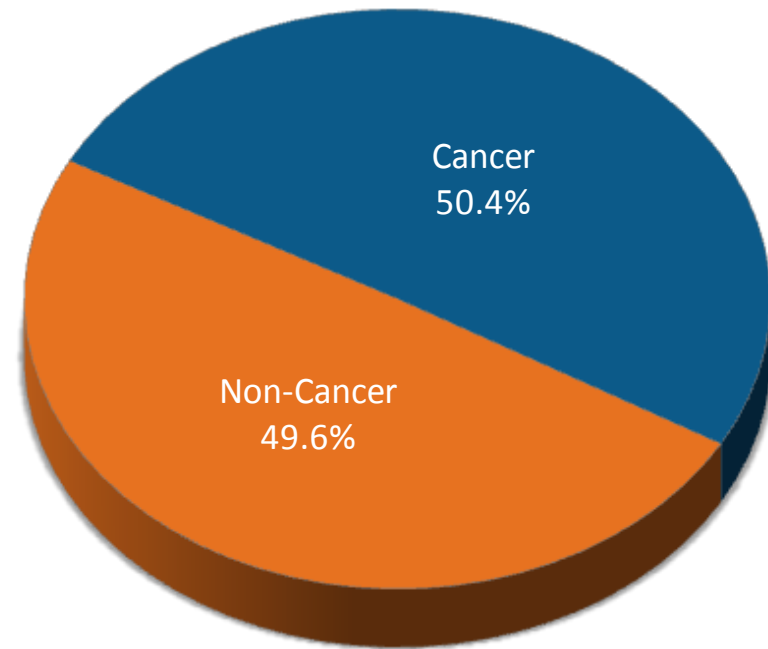
Sources: Nelson et al., *Nature Reviews*, 2010.  
Reichert Biotechnology Consulting LLC, 2015.

# Antibodies in Clinical Development

Stage of Development



Cancer vs. Non-Cancer Indications



468 antibodies in Clinical Trials

# *OMT Overview and Technology Platform*

# OmniAb Antibody Platforms

- OMT's genetically engineered novel, transgenic rodents produce ***fully human*** antibodies



- Key advantages:
  - Human antibodies have reduced immunogenicity
  - Using transgenic rodents avoids the need for genetic engineering to “humanize” antibodies and accelerates antibody discovery
  - Broad diversity of high-quality antibodies

# OmniAb Facilitates Rapid Antibody Discovery

- Groundbreaking research by OMT led to *Science* publication, creating scientific community visibility for the antibody generation technology
- OmniAb underlying technologies :



*An industry leading patented, validated human antibody rat*



*2<sup>nd</sup> species with different immune response genes yields additional antibodies and increased epitope coverage for partners*



*Rat with single common light chain, designed for bispecific human antibodies*

# The OMT Licensing and Partnering Model

- OMT enters into Platform License Agreements with partners/licensees that provide access to the OmniAb platform (OmniRat, OmniMouse and/or OmniFlic) for use in identifying antibodies for development
  - Generates revenue from upfront payments, annual maintenance fees, potential development /commercial milestones and/or potential royalties
  - Royalties rates in the low-to-mid single digits
- OmniAb colony maintenance and supply handled by Charles River Labs and Taconic
  - Sell directly to OMT partners/licensees
  - Reduces operational risk and required partnership/license maintenance
- Similar to Captisol, scientific and technical support form strong relationship foundation
  - Roland Buelow, Ph.D., founder of OMT, brings 30 years of extensive R&D experience in transgenic animal generation and antibody development to Ligand

# OMT Partners/Licensees

## 16 Partnerships and Licensees with Potential to Grow

- Impressive and growing roster of currently active partners/licensees validates the utility of the technology. Disclosed partners/licensees include:



- Ligand projects up to three antibodies from the OMT platform will be in human Phase 1 trials by the end of 2017 and as many as 15 antibodies could be in Phase 1 or more advanced trials by 2020

# OMT is a Leader in a Highly-Specialized Antibody Landscape

- OMT'S platform meets seven important standards
  - 1) Fully Human
  - 2) Eukaryotic System
  - 3) Transgenic Mouse
  - 4) Transgenic Rat
  - 5) Bispecific format
  - 6) Open platform
  - 7) Optimized Ab production
- Only antibody discovery platform that provides all seven

# Partner Commentary on OmniAb Technology

- Time savings:
  - *“We are getting high-affinity antibodies in a rapid period of time ... this improves our cycle times for antibody discovery substantially”*
  - *“For us, this saves significant time as we do not need to humanize”*
- Productivity/efficiency of animal-based system, high antibody quality:
  - *“There are major benefits to leveraging the in vivo selection pressure of an animal to select an antibody for you”*
  - *“15 out of 15 targets we have pursued with the technology have yielded high-quality antibodies”*
  - *“The animal-based approach is best for identifying quality antibodies”*
  - *“With OMT’s technology, your hit is your lead”*

# Partner Commentary on OmniAb Technology

- Freedom to operate:
  - *“Freedom to operate was very clear to us, because OMT has a rat”*
  - *“Having a rat and a mouse available was a big selling point for us”*
- As compared to competition or other technologies:
  - *“We ran OmniRat head-to-head versus phage display and OmniRat won ... the OmniRat will beat phage display any day”*
  - *“OmniRat gets us there in half the time as compared to another technology we’ve used”*
- Promise of next generation:
  - *“I would be very surprised if OmniFlic doesn’t deliver on expectations for bispecific antibodies”*

# Major Expansion of Licensing Opportunities

## *Furthering Technology Diversification*

**CAPTISOL®**

*Solving solubility and stability challenges predominantly for small molecules*



*Proven, unrestricted Fully Human Antibody technology enabling drug discovery in infectious diseases, cancer and autoimmunity*

**SELEXIS**  
SUREtechnology Platform™

*Allows for higher and more stable expression of recombinant proteins*

**LTP**  
**Technology™**

*Selectively delivers broad range of pharmaceutical agents to the liver*

# Underlying IP Diversification and Expansion

## *Addition of OmniAb Broadens and Extends Portfolio*

### **CAPTISOL®**

*Multiple patent families provide broad global coverage*

**EU: 2025**  
**US: 2029**



*Potential patent term to **2033***



*Initial patents:*  
**EU: 2028**  
**US: 2029 & 2033**

***BUT***, *post-antibody discovery, partner/licensee IP creates much longer patent and royalty tail from the **2030s** to early **2040s***

### **SELEXIS**

**SUREtechnology Platform™**

*Pioneering platform patent to **2023** in all major countries (except China)*

*Proprietary vector patent to **2026** in all major countries*

### **LTP**

## **Technology™**

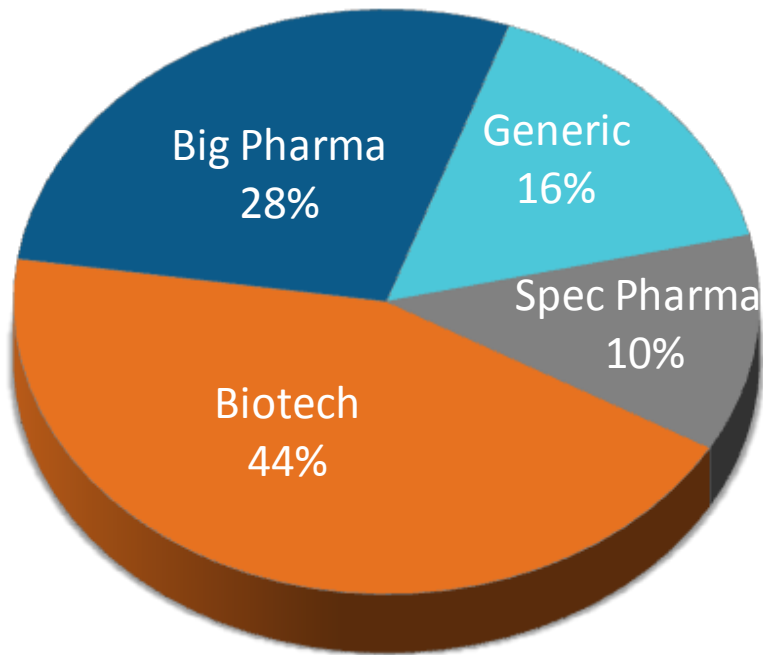
*Four distinct composition-of-matter patent families*

*Patent term to **2036***

# Proforma Partner Portfolio

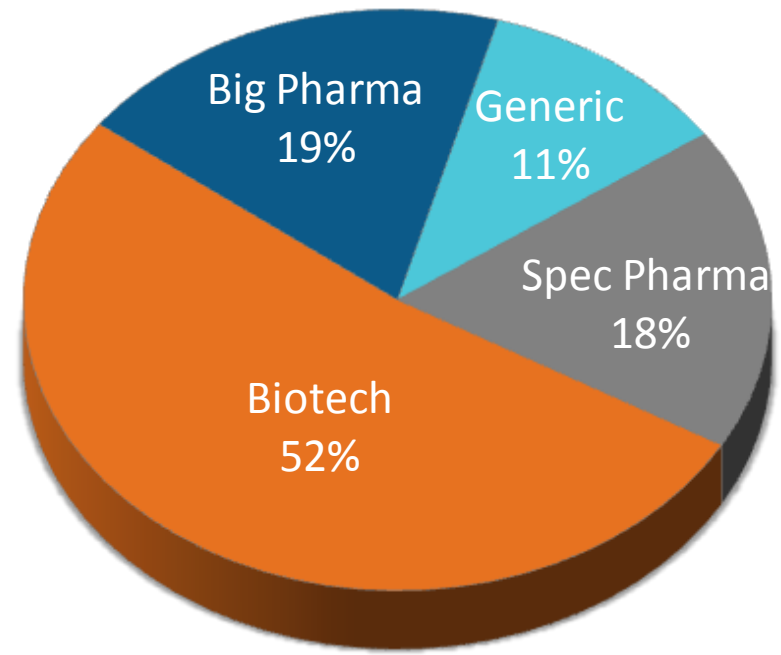
## *Expansion of Partner Base*

### Current Ligand



**> 74 Partners**

### Pro Forma



**> 83 Partners**

# *Financial Outlook and Upcoming Events*

# Primary Acquisition Terms

- \$178 million purchase price
  - \$92.6 million cash from existing cash reserves
  - \$85.4 million paid in Ligand common stock, ~780,000 shares
    - Stock collar creates upper and lower bounds for the number of shares to be delivered to OMT
- Projected to close in January 2016

# Projected Financial Impact

- Revenue
  - Near-term revenue consists of annual access fees and milestones from existing contracts
  - Adds \$6 million in 2016 and \$12 million in 2017
  - Adds 7% - 10% annually for the next decade
  - Initial products potentially launch in 2026 providing possibility for substantial new royalty streams into the 2030s and possibly 2040s
- Adjusted EPS
  - Slightly accretive to adjusted EPS in 2016; \$0.20 accretive in 2017
  - 4% - 8% accretive to adjusted EPS in 2017 and beyond

Note: The adjusted financial measures discussed above exclude changes in contingent liabilities, mark-to-market adjustment for amounts owed to licensors, non-cash stock-based compensation expense, non-cash debt-related costs, pro-rata non-cash net losses of Viking Therapeutics, non-cash OMT purchase price amortization and non-cash tax expense.

# Projected Financial Impact, continued

- Guidance
  - 2016 pro forma revenues between \$113 million and \$117 million, adjusted EPS in the range of \$3.33 to \$3.38
  - 2017 pro forma revenues expected to exceed \$158 million, adjusted EPS expected to exceed \$4.95
- OMT non-cash amortization expense estimates are expected to be determined in the near-term
  - Amortization charges will be recognized in GAAP EPS and the non-cash charge will be excluded from adjusted EPS
- Ligand projected to have ~\$100 million of cash at closing

Note: The adjusted financial measures discussed above exclude changes in contingent liabilities, mark-to-market adjustment for amounts owed to licensors, non-cash stock-based compensation expense, non-cash debt-related costs, pro-rata non-cash net losses of Viking Therapeutics, non-cash OMT purchase price amortization and non-cash tax expense.

# Upcoming Investor Events

Event	Location	Date
CJS New Ideas Conference	New York	January 13, 2016
Year-End Earnings Call	Conference Call	February – TBD
Deutsche Bank Pharma One-on-One Day	Denver	March 3, 2016
Annual Roth Conference	Dana Point, CA	March 13-16, 2016



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