Jefferies
2015 Global Healthcare Conference
NASDAQ: NLNK
June 3, 2015
Forward-Looking Disclaimer

These slides accompany an oral presentation by NewLink Genetics Corporation, which contains forward-looking statements. The Company’s actual results may differ materially from those suggested here. Additional information concerning factors that could cause such a difference is contained in the Company’s Annual Report on Form 10-K for the fiscal year ended December 31, 2014 and other prior and subsequent regulatory filings.

NASDAQ: NLNK
NewLink Genetics

Building a Fully Integrated Cancer Immunotherapy Company

- Deep pipeline of biologic and small molecule oncology candidates

- Partnered programs
  - Genentech for GDC-0919 and IDO/TDO pipeline
  - Merck for Ebola vaccine

- Proprietary programs
  - Phase 3 product in resected pancreatic cancer (algenpantucel-L)
  - Additional late-stage product for lung cancer (tergenpummatucel-L)

- Founded in 1999; Currently 160+ employees
NewLink Genetics
Targeting Immune Escape

Two distinct, proprietary platforms that harness multiple components of the immune system to combat cancer.
# Proprietary Programs: HyperAcute Immunotherapy

## Summary of Significant Near-Term Clinical Trials

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>INDICATION</th>
<th>DESIGN DETAILS</th>
<th>PHASE 1</th>
<th>PHASE 2</th>
<th>PHASE 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algenpantucel-L</td>
<td>Pancreatic cancer (resected)</td>
<td>IMPRESS: Algenpantucel-L + standard of care; randomized</td>
<td></td>
<td></td>
<td>ENROLLMENT COMPLETE</td>
</tr>
<tr>
<td></td>
<td>Pancreatic cancer (borderline resectable or locally advanced)</td>
<td>PILLAR: Algenpantucel-L + chemotherapy; randomized</td>
<td></td>
<td></td>
<td>ENROLLMENT 2H 2015</td>
</tr>
<tr>
<td>Tergenpumatucel-L</td>
<td>NSCLC (advanced or metastatic)</td>
<td>Tergenpumatucel-L vs. docetaxel and controlled for follow on chemotherapy; Phase 2b; randomized</td>
<td></td>
<td></td>
<td>UPDATE 2H 2015</td>
</tr>
</tbody>
</table>
HyperAcute Immunotherapy

Educating the Immune System to Attack Cancer

1. Pre-Existing “HyperAcute” Anti-α-gal Antibody Response
   
   LEADS TO...

2. Cellular Infiltration:
   - APCs, NK, NK-T cells
   - Eosinophilia, anti-Parasitic-Like

3. Humoral Immunity:
   - Anti-Tumor Antibodies

4. Cellular Immunity:
   - Tumor-specific T cells
HyperAcute Immunotherapy

Scale-up & Production

- Disease specific yet NOT patient specific (Allogeneic)
- Established, scalable production methodology
- Well characterized identity and potency

Master Cell Bank (1000x) → Working Cell Banks (1000x) → Production Lots (Algencel-L)
Pancreatic Cancer
Epidemiology & Pathophysiology

- 2nd leading cause of cancer death in U.S. by ≈2020*
- All stages, 5 year survival** < 5%
- Stage IIB, resected, 5 year survival** < 8%

Resection rate 20-25% U.S.*
Post resection standard of care
- Chemotherapy +/- Radiotherapy
- Gemcitabine +/- 5FU Concurrent Radiotherapy

<table>
<thead>
<tr>
<th>Annual Incidence in Major Markets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
</tr>
<tr>
<td>117,000</td>
</tr>
</tbody>
</table>

*AACR Journal (PanCan)
**Bilimoria et al., Cancer; August 15, 2007: Volume 110, Number 4: 738-744
Algenpantucel-L Phase 2 Results
Anti-CALR Ab Elevation Correlates with Improved OS

Anti-CALR Ab

<table>
<thead>
<tr>
<th></th>
<th>Increased Ab</th>
<th>No Increase</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number Patients</td>
<td>31</td>
<td>33</td>
<td>64</td>
</tr>
<tr>
<td>OS (months)</td>
<td>&gt;35</td>
<td>19.2</td>
<td>P &lt; 0.04 (log rank test)</td>
</tr>
<tr>
<td>30 month survival</td>
<td>55%</td>
<td>21%</td>
<td>P &lt;0.01 (Fisher’s exact test)</td>
</tr>
</tbody>
</table>
Phase 3 Registration Trial - IMPRESS
*Surgically Resected Pancreatic Cancer*

- IMPRESS Trial (n = 722)
  - SOC +/- algenpantucel-L
  - Initiated, May 2010 under SPA with the FDA
  - FDA Fast Track and Orphan Drug
  - Open label, 2 arm, randomized study; overall survival primary endpoint
  - Designed to detect ≈20% difference in overall survival at final analysis
  - Post surgical resection patients (adjuvant)
Accrual Status and Endpoints

- Completed enrollment September 2013 (722 patients)
- Second interim analysis (at 333 events) completed in May 2015
  - DSMC recommended continuation without modification
- Final analysis at 444 events
# IMPRESS Patient Characteristics

*Consistent with Previously Reported Large Studies*

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>RTOG 9704&lt;sup&gt;1&lt;/sup&gt; (n=221)</th>
<th>IMPRESS (n=722)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (Median)</td>
<td>61</td>
<td>65</td>
</tr>
<tr>
<td>Gender (Male)</td>
<td>53</td>
<td>52</td>
</tr>
<tr>
<td>Tumor Location</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Head</td>
<td>85%</td>
<td>80%</td>
</tr>
<tr>
<td>Body/Tail</td>
<td>15%</td>
<td>20%</td>
</tr>
<tr>
<td>CA19-9 ≥180</td>
<td>9%&lt;sup&gt;2&lt;/sup&gt;</td>
<td>9%</td>
</tr>
<tr>
<td>Tumor Grade (Poor/Undifferentiated)</td>
<td>30%</td>
<td>35%</td>
</tr>
<tr>
<td>Nodal Status (N+)</td>
<td>68%</td>
<td>70%</td>
</tr>
<tr>
<td>Tumor Size (≥3.0 cm)</td>
<td>59%</td>
<td>55%</td>
</tr>
<tr>
<td>High Risk (N+ and/or ≥2.5 cm)</td>
<td>NA</td>
<td>92%</td>
</tr>
</tbody>
</table>

<sup>1</sup> Regine et al, JAMA 2008; 299(9): 1019-1026
Survival in Resected Pancreatic Cancer

NO Change in Outcomes for Over Three Decades

Median OS ≈ 19 Months

N=1,687

He, J, Et al, HPB, Volume 16, Issue 1, January 2014
Commercialization Strategy

Algenpantucel-L for Patients with Pancreatic Cancer

- NewLink Genetics plans to execute an independent U.S. commercial launch
  - Establish experienced oncology commercial team
  - Leverage key pancreatic surgical centers as hubs
  - Provide strong product support across entire multidisciplinary team

- Key launch components currently being assembled
  - Utilizing state of the art cold chain distribution technology & services
  - Conducting reimbursement analysis & establishing support services
  - Corporate & product branding initiatives underway

- Pursuing partnerships for ex-U.S. commercialization
  - Anticipate EMEA submission with IMPRESS results
  - Partnership discussions to follow IMPRESS results
IDO Pathway Inhibitors
Indoleamine 2,3-dioxygenase (IDO)

“Disrupting mechanisms by which tumors evade a patient’s immune system.”

NewLink Genetics IDO Pathway Inhibitors
GDC-0919
Indoximod
Key Immune Checkpoints

*Interrelations of CTLA-4, IDO and PD-1 Pathways*

CTLA-4 ↔ IDO → PD-L/PD1

IDO(+) pDC

IDO(+) Treg

IDO(-) DC

Teff

*CTLA-4 and IDO participate in a self-maintained loop*

IDO activated Tregs up-regulate PD-ligands on DCs

Based on Sharma et al... and DH Munn *J. Clin. Invest.*, 2007
NewLink Genetics IDO Program

Developing Two Distinct IDO Pathway Inhibitors

- **GDC-0919**
  - Potent direct inhibitor of IDO protein
  - Orally administered, small molecule
  - Partnered with Genentech

- **Proprietary Programs: Indoximod**
  - Orally administered, small molecule
  - Ongoing randomized phase 2 trials combining with chemo/vaccine
  - Retained exclusive rights
Indoximod
IDO Inhibition Synergy w CTLA-4 Blockade
Induces Regression of Established Tumors

Holmgaard et al, JEM 2013,
Indoximod
IDO Inhibition + CTLA-4 + Vaccine
Synergizes with CTLA-4 Blockade plus Vaccine

Holmgaard et al, JEM 2013,
## Proprietary Programs: Indoximod

### Summary of Key Clinical Trials

<table>
<thead>
<tr>
<th>DISEASE/TUMOR TYPE</th>
<th>REGIMEN</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metastatic Breast Phase 2</td>
<td>Indoximod + docetaxel or paclitaxel; randomized</td>
<td>Enrollment end of 2015</td>
</tr>
<tr>
<td>Glioblastoma Phase 1b/2</td>
<td>Indoximod + temozolomide</td>
<td>Phase I enrollment complete; Phase 2 enrolling</td>
</tr>
<tr>
<td>Advanced Melanoma 1b/2</td>
<td>Indoximod + ipilimumab</td>
<td>Phase 1b top-line results end of 2015</td>
</tr>
<tr>
<td>Metastatic Pancreatic 1b/2</td>
<td>Indoximod + gemcitabine and nab-paclitaxel</td>
<td>1b enrollment 1H 2015; Phase 1b top-line results 2016</td>
</tr>
</tbody>
</table>

Results from Phase 1b portion of the indoximod + temozolomide study presented at a poster presentation (#2070) during the *American Society of Clinical Oncology*
Indoximod

Results of Phase 1b trial in GBM from ASCO 2015

Design
- Phase 1b/2 trial of indoximod in combination with temozolomide for recurrent / temozolomide refractory patients with GBM
- Dose escalation study
- Primary endpoint safety and establishment of dose for use in Phase 2

Results
- 12 patients enrolled, no dose limiting toxicities seen
- Encouragingly, 4 patients with stable disease (4-11 months) and an objective response in a previously TMZ-refractory patient
- Expansion into phase 2 underway
NewLink Genetics

Ebola Vaccine

- Partnered with Merck
  - $20 million milestone earned February 2015
- Exclusive worldwide license from Canadian government
- Built on recombinant vesicular stomatitis virus (rVSV)
- Potential for both pre and post exposure use
- Multiple trials in West Africa underway
- GMP manufacturing capacity/potentially millions of doses
- $30 million BARDA contract announced December 22, 2014
Investment Thesis Summary

• Deep pipeline of oncology products in immuno-oncology
• Two distinct platforms to leverage expertise: HyperAcute™ Vaccine and IDO Pathway Inhibitor
• Corporate validation: Genentech/Roche, Merck
• Significant cash to fund pipeline
• Building out senior management and middle management to prepare for commercialization and growth