Altor BioScience Corporation

Jefferies Global Healthcare Conference
June 2016
Company Highlights

- Focused on discovering and developing novel protein-based immunotherapeutics for cancer
  - Formed in 2002
  - 30 employees based in Miramar, Florida

- Capital efficient company
  - Raised $50 million in equity
  - Received $20 million in NIH & NCI Grants

- Robust pipeline of proprietary product candidates addressing large markets with unmet medical needs

- Robust IP portfolio with >85 issued and >40 pending patents
Game-changing Technology Platforms

- **IL-15 based Super Agonists**
  - Lead product **ALT-803** in Phase 1/2 clinical trials

- **STAR™ (Single-chain T-cell Receptors)**
  - Lead product **ALT-801** completed Phase 2 metastatic bladder cancer and Phase 1/2 metastatic melanoma trials
Experienced Management Team

- Patrick Soon-Shiong, M.D., Chairman*
- Hing C. Wong, Ph.D., Founder & CEO
- Fred Middleton, CBO
- Rick Greene, CFO*
- Peter Rhode, Ph.D., Senior Vice President, R&D
- Amy Rock, Ph.D., Vice President, Clinical Operations & Regulatory Affairs*
- David Jen, Ph.D., Vice President, Manufacturing*

*Recently joined Altor team
Our Focus

- Immune stimulation with good tolerability profile
  - Enhance other immunotherapies
  - Induce durable response

Diagram:
- Checkpoint Inhibition
- Tyrosine Kinase Inhibitors
- Therapeutic Antibodies
- Cancer Vaccines
- Cell-based Therapies
Cytokine Therapy: IL-2 versus IL-15

ALT-803: A Superagonist Fusion Complex

IL-15N72D
IL-15Rα
IgG1 Fc

ALT-803

Improved IL-15Rβγ binding activity through N72D mutation and IL-15Rα
30x more active versus IL-15 in vivo

Induces IFN-γ and NK and CD8+ T-cell proliferation

Increased serum half-life
25hrs in vivo versus <40min for IL-15

Longer residence time in lymphoid tissue for lymphocyte stimulation

A superagonist called ALT-803, based on an IL-15 variant complexed to a dimeric IL-15 receptor α-Fc fusion protein, was found to be a powerful antitumor agent in multiple models.

Original micrograph shows CD8+ T cells binding and internalizing ALT-803.

ALT-803’s Anti-tumor Mechanism of Action

“ALT-803 Ranked as #1 Immunotherapeutic Agent for Cancer”*

- Enhanced immunostimulatory properties
- Activation of NK and T cells
- Tolerable toxicity profile

*Mac Cheever, Head of CITN, at the 2013 Annual Society for Immunotherapy of Cancer Conference
Efficacy of ALT-803 and Checkpoint Inhibitors in Mouse Tumor Models

B16F10 Melanoma

- PBS
- ALT-803
- αPD-L1
- ALT-803 + αPD-L1

5T33 Myeloma

- PBS
- ALT-803 (0.05 mg/kg)
- αPD-L1 (0.25 mg/kg)
- ALT-803 + αPD-L1

CT26 Lung Metastases

- PBS
- ALT-803
- ALT-803 + αCTLA4
- ALT-803+αCTLA4+αPD-L1

GL261 luc Glioblastoma

MB49 luc Bladder Tumors

Efficacy of ALT-803 and rituximab against B-cell Lymphomas

The IL15-Based ALT-803 Complex Enhances FcγRIIIa-Triggered NK-Cell Responses and In Vivo Clearance of B-Cell Lymphomas

Potential Synergistic Activities of ALT-803 and Therapeutic Antibodies for Immunotherapy

Enhanced ADCC

Tumor cell death

Effector & memory T cell responses against tumor

Vaccinal Effect

### ALT-803 Clinical Trials

<table>
<thead>
<tr>
<th>Indication</th>
<th>Phase</th>
<th>Therapy</th>
<th>Milestones</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relapse of hematologic malignancy after allogeneic SCT</td>
<td>1</td>
<td>Monotherapy</td>
<td>Data throughout 2017</td>
</tr>
<tr>
<td>Advanced solid tumors: melanoma, renal cell, NSCLC and head &amp; neck cancers</td>
<td>1</td>
<td>Monotherapy</td>
<td>Data throughout 2017</td>
</tr>
<tr>
<td>Relapsed/refractory multiple myeloma</td>
<td>1</td>
<td>Monotherapy</td>
<td>Data throughout 2017</td>
</tr>
<tr>
<td>Non-muscle invasive bladder cancer</td>
<td>2</td>
<td>Combination (w/ BCG)</td>
<td>Data throughout late 2016 – 1H17</td>
</tr>
<tr>
<td>Advanced or metastatic non-small cell lung cancer</td>
<td>1</td>
<td>Combination (w/ anti-PD-1)</td>
<td>Data throughout 2017</td>
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<tr>
<td>Relapsed/refractory iNHL</td>
<td>1 / 2</td>
<td>Combination (w/ anti-CD20)</td>
<td>Data throughout 2017</td>
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<tr>
<td>Pancreatic cancer*</td>
<td>1 / 2</td>
<td>Combination (w/ gemcitabine+nab-paclitaxel)</td>
<td>Data throughout 2017</td>
</tr>
<tr>
<td>HIV</td>
<td>1</td>
<td>Monotherapy</td>
<td>Data throughout 2017</td>
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Lymphocyte Proliferation Kinetics
ALT-803 Dose Level 6µg/kg

Miller JS, et al. ‘First-in-human’ phase I dose escalation trial of IL-15N72D/IL-15Rα-Fc superagonist complex (ALT-803) demonstrates immune activation with anti-tumor activity in patients with relapsed hematological malignancy. In: 57th Annual ASH meeting; Dec 5-8, 2015; Orlando, FL; ClinicalTrials.gov Identifier: NCT01885897.
Three patients with stable disease 1 month after 4 doses of ALT-803

- One complete response (at the 6 µg/kg dose)
  - 69 y/o man
  - Recurrent RAEBT (9% blasts)
  - Complex cytogenetics (monosomy 7 with cytogenetic evolution in 5/20 metaphases)
  - Relapsing after prior second unrelated donor transplant with 46% donor chimerism at the time of treatment

Follow-up bone marrow biopsy revealed:
- 3% blasts
- Normal karyotype
- 93% donor chimerism with normalization of blood counts
- Hgb from 9.6 to 12.5, platelets from 61K to 168K, WBC from 1.7 to 4.2 and ANC from 400 to 1400 from pre-therapy to one month post-therapy

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Strategy For Future Development

- Enhance ALT-803’s profile through expanded Cancer MoonShot 2020 Trials
- Further develop ALT-803 and ALT-801 technologies through a CRADA (Cooperative Research and Development Agreement) with the NCI (National Cancer Institute)
- Seek Co-Development Partner(s) for combination trials
- Complete additional financing round in 2016
- Continue to develop corporate infrastructure with path toward an IPO