NEMUCORE
MEDICAL INNOVATIONS, INC.

One Hollis Street, Suite 232
Wellesley, MA 02482
Nemucore’s History

Majority of cancer patients have disease with no actionable genetic alterations. Nemucore was founded in 2008 to create Precision Medicines for these patients.

Nemucore’s Vision

Each individual’s cancer holds the knowledge to its own elimination. Nemucore unlocks this knowledge.

Nemucore’s Mission

License, Develop and Commercialize Best-in-Class Precision Medicines for Highly Lethal Cancers
Company Highlights

• In-licensing technology integration driven business model – mitigates R &D risk
• Option on global commercial rights to NMI-900 and *companion diagnostic
• Focused on “Precision Medicine” development of NMI-900, leveraging significant investments by GlaxoSmithKline and Cancer Research UK
• NMI-900 and companion diagnostic address multiple cancer indications
  o Acute Myeloid Leukemia (AML)
  o Myelodysplastic syndromes (MDS)
  o Breast cancer
  o Non-small cell lung cancer
  o Ovarian cancer
• Evidence of clinical activity and safety data NMI-900 Phase 1 trial
• Potential for clinical trial data over the next 18-36 months
• Raising funds to complete syndication of Series B Financing

* Companion Diagnostic option term extension being negotiated to match the NMI-900 term
NMI-900: Inhibits Aurora B Kinase Disrupting Cell Division

- Strong NMI-900 binding leads to sustained Aurora B Kinase inhibition
- Stops cancer cells from dividing, resulting in cell death
- Potent, reversible competitive inhibitor of Aurora B Kinase
- Synergistic with *chemotherapeutics, targeted and immuno-therapies*

### NMI-900 Best-in-Class Binding to Aurora B Kinase Compared to Other Aurora B Kinase Inhibitors

<table>
<thead>
<tr>
<th></th>
<th>NMI-900</th>
<th>Competitor A</th>
<th>Competitor B</th>
<th>Competitor C</th>
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<tbody>
<tr>
<td>Dividing Cancer Cell</td>
<td>8 to 24 hours</td>
<td>&lt; 0.5 hour</td>
<td>&lt; 0.25 hour</td>
<td>&lt; 2.6 hour</td>
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</table>
NMI-900: Phase 1 Clinical Trial Summary

• Phase 1 trial demonstrated 61% clinical activity, the highest rate among Aurora Kinase Inhibitors
  - Patient population - heavily pre-treated solid tumors
  - Administered 1-hour IV infusion M-F every three weeks
  - 1 patient had partial response and 21 patients had stable disease
  - Study run by leading cancer centers in the United Kingdom

• Safe and well tolerated in 36 patients
  - Main 3/4 Adverse Event (AE) neutropenia and anemia
  - AEs were reversible

• Classical trial design, performed with No patient selection

Note: See Appendix for additional information.
NMI-900: Novel Companion Diagnostic Highlights

- Holistic approach to determining sensitivity to NMI-900
- Measures multiple biomarkers responsible for NMI-900 sensitivity and resistance
- Uses “Systems Biology” algorithm to calculate an NMI-900 Drug Response Predictor (DRP™) score for an individual’s cancer
- Independent of mutation status
- Suitable for screening all cancer indications
- Performed on an Affymetrix chip in a clinic ready CLIA-setting
- Enables precision medicine clinical development program
NMI-900 DRP™: Enabling Precision Guided Trials
Stacking the Deck in One’s Favor

- Over 5,000 cancer patients have been screened with the NMI-900 DRP™
- Each ○ represents a single patient
- Results segregated into discrete cancer indications
- “Blood Cancers” show a high degree of sensitivity to NMI-900 (example in red box)
- Solid tumors show promising potential for combination therapy with NMI-900
Working with Clinical Leaders

• Phase 1b/2 clinical development of NMI-900 in AML and High Risk(HR) MDS
  ○ Principal Investigators at Moffitt and Memorial Sloan-Kettering Cancer Centers
• Expansion of Phase 2 will include Principle Investigators from
  ○ Massachusetts General Hospital** and Massey Cancer Centers
Summary AML / HR-MDS Clinical Trial Plan

** In collaboration with Moffitt and Memorial Sloan-Kettering Cancer Center **

### Phase 1b / 2 Trial

**Study Highlights:**
- 2 arm trial
- Patient population: Patients with recurrent disease or those unsuitable for standard therapy
- Phase 1 Endpoints: Safety & Tolerability
- Phase 2a Endpoint: Efficacy
  - AML response criteria
  - International Working Group Criteria
- Analyze patient biopsies for NMI-900 DRP™ signature
- Number of patients per Arm: ~20
- Total Trial budget: $4M-$5.5M

### Arm 1
- NMI-900 IV weekly
- Dose escalation: 12 patients
- Expansion arm total: 20+ patients

### Arm 2
- NMI-900 IV twice weekly
- Dose escalation: 12 patients
- Expansion arm total: 20+ patients

Apply for Fast Track, Breakthrough Therapy and Orphan Drug Designations
Clinical Development Plan

Year 1
- Exercise options on NMI-900 and Diagnostic
- AML/HR-MDS Trial initiation – IND, clinical materials and diagnostic
- Initiate Phase 1b trial in AML/HR-MDS
  - Moffitt & MSKCC
  - Physician Investigators: Drs. David Sallman (Moffitt) & Eytan Stein (MSKCC)
- Safety, Schedule, Efficacy and Sensitivity/Predictive power of the diagnostic
- Apply for Orphan Designation in AML and/or MDS
- MDS-CMML Trial initiation – IND, clinical materials and diagnostic

Year 2
- Manufacture second batch of NMI-900
- Open Phase 2 of AML/HR-MDS trial
  - Efficacy and Sensitivity/Predictive power of the diagnostic
- Interim analysis of AML/MDS data
- Open Combination MDS–CMML trial
  - Moffitt
  - Physician Investigators: Drs. Eric Padron and David Sallman
  - Safety, Schedule, Efficacy and Sensitivity/Predictive power of the diagnostic
- Preclinical Confirm Solid Tumor Synthetic Lethal Combinations MGHCC

Year 3
- Top line analysis of Phase 2 AML/MDS data
- Data warranting, apply for Fast Track approval in AML and/or HR-MDS
- Open Phase 3 AML and/or HR-MDS
- Initiate Phase 1b clinical trial in Ovarian/Breast Cancer/Lung
  - Combination trial
  - Safety, Schedule, Efficacy and Sensitivity/Predictive power of the diagnostic
- Apply for Orphan Designation in select solid tumor indications
Strategy: Uniquely Position NMI-900 for Commercial Success

Strategic Summary

• Pursue FDA approval in indications that NMI-900 can be utilized as a single agent

• Work with Key Opinion Leaders to identify solid tumor indications where combination with NMI-900 lead to successful FDA approval

NMI-900 and AML/ high risk (HR)-MDS patients

• NMI-900’s unique activity and our biomarker analysis indicate NMI-900 could be very effective in AML and high risk-MDS patients. Plans are to have clinical data to support a fast-track designation in 24-30 months.

• NMI-900 AML/HR-MDS trials will be conducted at Moffitt and Memorial Sloan-Kettering Cancer Centers with phase 2 expansion sites to include MGH, Massey and Fox Chase Cancer Centers.

Milestones Achieved

• Recruited top oncologist to perform the designed clinical trials

• Secured a diagnostic partner for the performance of the NMI-900 DRP™ companion diagnostic

• Novella Clinical - A Quintiles Company selected as CRO partner to oversee the trial execution

• Sigma-Aldrich, world-class manufacturing partner to create future batches of NMI-900
Strategy: Uniquely Position NMI-900 for Commercial Success

• **Example exit:** Celator Pharmaceuticals reformulation of standard of care therapies achieved data superior to standard of care (47.7% vs. 33.3%, respectively). Two months later Jazz Pharmaceuticals purchased Celator for $1.5B. Four months prior to the acquisition, Celator was trading at ~$28M in market capitalization.

• **Example **value created with companion diagnostic:** June 28th 2016, Tesaro announced Niraparib’s Phase III NOVO Trial showed significant progression free survival in a “stratified” ovarian cancer patient population. Shareholders gained $2.6B in market capitalization upon the announcement.

• **Example value lost because no companion diagnostic:** August 28th 2016, Bristol-Myers Squibb announced the Opvido™ Checkmate-026 Trial failed to achieve its primary endpoint in a “broad” population of lung cancer patients. Shareholders lost $2.2B in market capitalization upon the announcement.

• **Example fast-track:** Novartis won approval for Midostaurin, the first targeted therapy for AML patients who contain a FLT-3 mutation within 18 months of a fast-track designation.
Management Team

Timothy P. Coleman, PhD, MBA
Chairman of the Board, Founder
President & Chief Executive Officer

- Career focus on multidrug resistant (MDR) cancer therapy development
- More than 15 years of industry, entrepreneurial and leadership experience
- Former Manager in the Healthcare Advisory Practice at PwC
- Founder and former CEO of BioCache Pharmaceuticals, Inc.

William “Sandy” White, MBA*
Chief Operating Officer

- More than 30 years of pharmaceutical industry experience including senior management roles at Wyeth and Monsanto
- More than 10 years of C-Level experience in the creation and development of start-up companies

Christopher Swenson, JD, MBA*
Chief Business Officer

- Former Head of Healthcare Private Equity Placements at Piper Jaffray
- Extensive experience in healthcare financing and law

Barbara Davis, VMD, PhD, DACVP*
Chief Scientific Officer

- Senior-level pharmaceutical experience at AstraZeneca and Millennium
- Chief of NIH Laboratory of Women’s Health
- Extensive oncology, toxicology and pathology experience

David Williams, MS*
Senior Vice President, Operations

- More than 25 years of experience in cGMP manufacturing
- Experience at Eli Lilly, Monsanto, Croptech, Chlorogen, and Integrated Protein Technologies

Allison Morse MSN, SCM
Director of Clinical Affairs

- More than 15 years of experience caring for woman with multidrug resistant cancers
- Established the Division of Gynecologic Oncology across a multi-hospital network in Eastern Massachusetts

*Today Nemucore is virtually organized with the management team participating when their expertise is required. Compensated in equity; cash compensation upon raise.
Board of Directors

Timothy P. Coleman, PhD, MBA
Chairman of the Board, Founder
President & Chief Executive Officer
- Career focus on multidrug resistant (MDR) cancer therapy development
- More than 15 years of industry, entrepreneurial and leadership experience
- Former Manager in the Healthcare Advisory Practice at PwC
- Founder and former CEO of BioCache Pharmaceuticals, Inc.

Douglas G. Bailey, SB, SM, ME, MBA
Director, Chairman of the
Compensation Committee
- More than 35 years of executive leadership and board experience
- President, CEO and Founder of American Bailey Corporation
- Executive Chairman of the Board of Fuel Tech, Inc.
- Former Director and Compensation Committee Chair, Endocyte, Inc.

Bryan A. Costantino, MBA, MSPA
Lead Director, Chairman of the
Audit Committee
- Partner at PwC for more than 25 years
- Co-Founder of a billion-dollar healthcare advisory practice

James B. Farinholt, Jr., BS
Director, Chairman of the
Nominating and Governance Committee
- Extensive career in private and public investment and finance sectors
- Founding Partner Tall Oaks Capital Partners; Initiated/oversaw start-ups
- Former Assistant to the President for Economic Development of Virginia Commonwealth University

Michael V. Seiden, MD, PhD
Director
Lead Clinical Advisor
- More than 20 years of experience as a practicing oncologist
- CMO of McKesson Specialty Health and The US Oncology Network
- Former CEO and President of Fox Chase Cancer Center
Clinical Advisors

Michael V. Seiden
MD, PhD
• Chief Medical Officer of McKesson Specialty Health and The US Oncology Network
• Former CEO and President of Fox Chase Cancer Center

David Sallman
MD
• Clinical instructor in the Dept. of Malignant Hematology
• Specializes in the development of novel, targeted therapeutic strategies for patients with MDS and AML

Eytan M. Stein
MD
• Hematology-oncology physician specializing in Leukemias, myelodysplastic syndromes, and myeloproliferative neoplasms
• Active clinical researcher developing new approaches to treating AML

Ross L. Levine
MD
• Laurence Joseph Dineen Chair in Leukemia Research
• Director, MSK Center for Hematologic Malignancies

Alan List
MD
• President and CEO of Moffitt Cancer Center
• Internationally recognized for contributions in development of novel, more effective treatment strategies for MDS and AML
NMI-900 Products Address Large Unmet Clinical Needs

**Acute Myeloid Leukemia (AML)**
- 20,830 annual U.S. diagnoses
- 10,460 annual U.S. mortalities
- **38% of patients achieve 5-year survival; median survival is 22.8 months**

**Myelodysplastic Syndrome (MDS)**
- 40-60,000 in U.S. and 300,000 afflicted worldwide
- **80-90% of patients are over age of 60**

**Ovarian Cancer**
- 21,290 annual U.S. diagnoses, 99,000 worldwide
- 14,180 annual U.S. mortalities
- 70% diagnosed with advanced disease
- **Majority relapse within 12-18 months with Pt-resistant disease**

**Breast Cancer – Triple Negative Breast Cancer (TNBC)**
- 231,840 annual U.S. diagnoses
- 40,290 annual U.S. mortalities
- **TNBC accounts for 15% of diagnosed and 25% of mortalities**

**Non-Small Cell Lung Cancer (NSCLC)**
- 224,000 annual U.S. lung cancer diagnoses
- 80-85% are NSCLC
- **10-15% are EGFR* in U.S., 50-90% EGFR* in Asia**

License Agreements Will Contain the Following Intellectual Property

- Composition of matter patents issued
  - Twelve issued patents
  - Global protection US, EU and Japan
- Use in the treatment of cancer issued
- Formulation patent issued
- Covers entire family of candidates
- Diagnostic patent
- Additional use patents to be filed
Areas of Capital Deployment to Build Shareholder Value

• Capital will be deployed over a 36-month time frame

• Drug Finish, Packaging and Labelling
  - Baxter BioPharma Solutions

• Clinical Trials, Regulatory and Diagnostic
  - Pending: AML/ HR-MDS Phase 1b/2 trial performed at Moffitt and MSKCC run with NMI’s CRO Partner
  - Future: MDS-CMML Phase 1b/2 trial performed at Moffitt and MSKCC with CRO oversight
  - Future: Ovarian/Breast/Lung Cancer combination Phase 1b/2 trial performed at MGH, FCCC and Massey

• Manufacturing Additional NMI-900
  - Sigma-Aldrich (SAFC)

• Licensing Fees
  - NMI-900 Licensing fees: CRUK/GSK
  - NMI-900 DRP™ Diagnostic Licensing Fees: Medical Prognosis Institute

• Operations and Administration
Select Financial Assumptions

• Current capital raise to support syndication of Series B Financing
• AML/MDS clinical trials planned for years 1 and 2
• Additional NMI-900 Manufacturing
• Additional trials in MDS/CMML as well as Ovarian/Breast/Lung Planned
• Series C or public offering in 24-36 months
Company Highlights

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Contact Information

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NMI-900: Safe and Clinically Active in Cancer Patients

**Study Highlights**
- Early efficacy signals - 61% clinical activity - superior to other Aurora Kinase Inhibitors
- Highest response rate among Aurora Kinase Inhibitors in comparable clinic studies
- Safe and well tolerated
- Most prevalent side effect was predictable and treatable neutropenia

**Study run by leading cancer centers in UK (May 2010 - June 2013)**
- **Sponsor:** Cancer Research UK's Clinical Development Partnerships (CDP) program
- **Clinical Trial Sites:** Leeds Cancer Centre at St. James's University Hospital, and Barts and The London School of Medicine
  - 36 patients with advanced/metastatic solid tumors; no standard therapy available
- **ClinicalTrials.gov Identifier:** NCT01118611
- **Presented and published:** ASCO 2013; *J Clin Oncology* 31, 2013 (suppl; abst 2525)
NMI-900 Diagnostic Score Calculation and Testing a Clinical Trial Patient’s Cancer

1. “Program” Affy-chip with NMI-900 diagnostic signature

2. Test cancer patient’s genetic material

3. Calculate patient’s cancer specific NMI-900 Diagnostic Score

4. How sensitive is a patient’s cancer to NMI-900?
AML Supporting Data: Compelling 45% Clinical response to Aurora B kinase inhibitor AZD1152

- Response duration to AZD1152 vs LDAC is illustrated \(^1\)
- Major issue: Daily dosing x7 days (24 hour infusion)

Reformulated AZD1152 = AZD2811

<table>
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<tr>
<th>Condition</th>
<th>NCT Number</th>
<th>Date</th>
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<tbody>
<tr>
<td>AML/Hr MDS</td>
<td>NCT03217838</td>
<td>July 2017</td>
</tr>
<tr>
<td>Solid Tumor</td>
<td>NCT02579226</td>
<td>Oct 2015</td>
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\(^1\) Ongoing in response at data cutoff

A confirmed CRi was based on the Cheson criteria and confirmed \(\geq21\) days after first observation and with partial recovery of neutrophils and platelets.