

NEMUCORE

MEDICAL INNOVATIONS, INC.

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Mission & Vision

Company Highlights

Nemucore Platform

Clinical Program

Strategy

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Intellectual Property

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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
 - Acute Myeloid Leukemia (AML)
 - Myelodysplastic syndromes (MDS)
 - Breast cancer
 - Non-small cell lung cancer
 - 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

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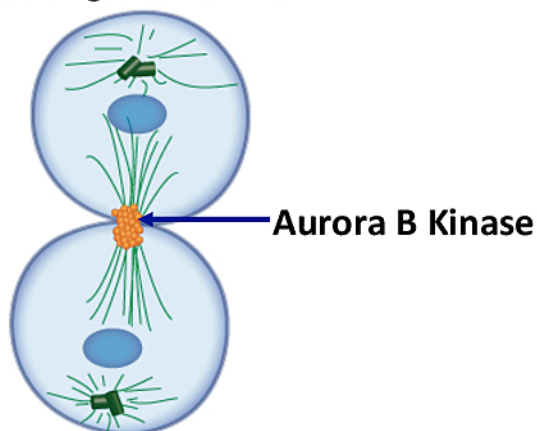
* Companion Diagnostic option term extension being negotiated to match the NMI-900 term

NMI-900: Inhibits Aurora B Kinase Disrupting Cell Division



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Dividing Cancer Cell



NMI-900 Best-in-Class Binding to Aurora B Kinase Compared to Other Aurora B Kinase Inhibitors			
NMI-900	Competitor A	Competitor B	Competitor C
8 to 24 hours	< 0.5 hour	< 0.25 hour	< 2.6 hour

- 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: Phase 1 Clinical Trial Summary

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- 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

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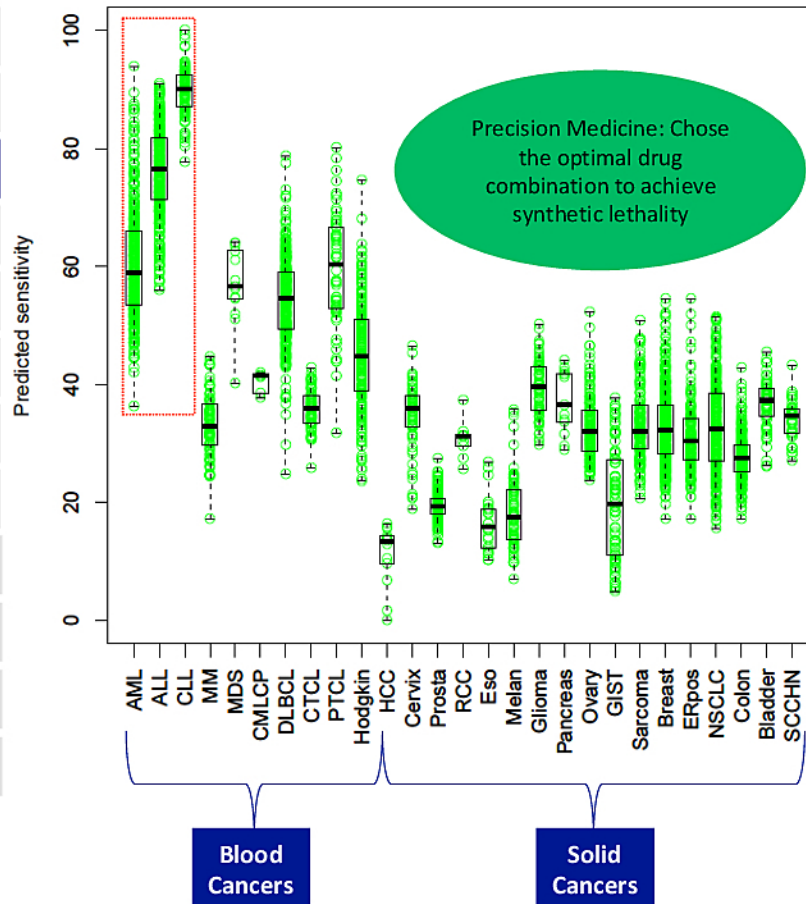
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- Holistic approach to determining sensitivity to NMI-900
- Measures multiple biomarkers responsible for NMI-900 sensitivity and resistance
- Uses “Systems Biology” algorithm to calculate an NMI-900 Drug Response Predictor (DRP™) score for an individual’s cancer
- Independent of mutation status
- Suitable for screening all cancer indications
- Performed on a 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

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- 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



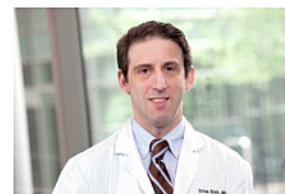
Dr. Alan List



Dr. David Sallman



Dr. Ross Levine



Dr. Eytan Stein

- 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

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Summary AML / HR-MDS Clinical Trial Plan

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

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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

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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

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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



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- **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

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*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



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*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

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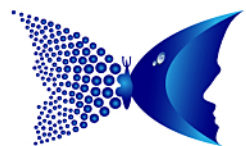
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NEMUCORE
MEDICAL INNOVATIONS, INC.

Clinical Advisors



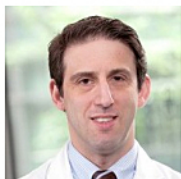
Michael V. Seiden
MD, PhD

- 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

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NMI-900 Products Address Large Unmet Clinical Needs

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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**

\$1.0B Market

Myelodysplastic Syndrome (MDS)

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

\$1.5B Market

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**

\$1.5B Market

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**

\$1.0B Market

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**

\$7.0B Market



License Agreements Will Contain the Following Intellectual Property

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- 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

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- 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

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- 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



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Contact Information

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Chairman, Chief Executive Officer, President and Founder
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NMI-900: Safe and Clinically Active in Cancer Patients

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- **Study Highlights**

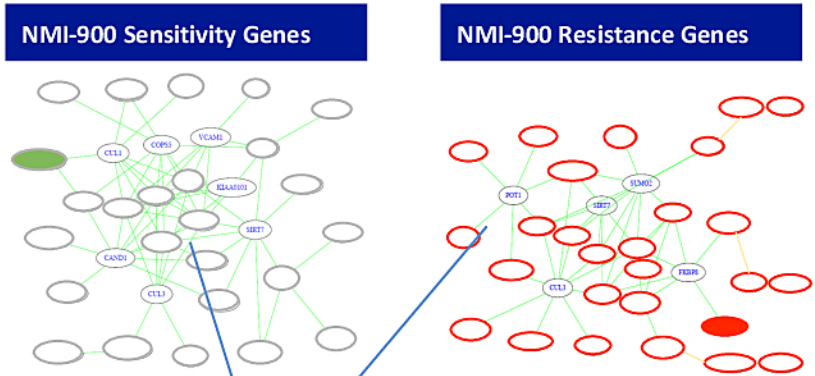
- Early efficacy signals - 61% clinical activity - superior to other Aurora Kinase Inhibitors
- Highest response rate among Aurora Kinase Inhibitors in comparable clinic studies
- Safe and well tolerated
- Most prevalent side effect was predictable and treatable neutropenia

- **Study run by leading cancer centers in UK (May 2010 - June 2013)**

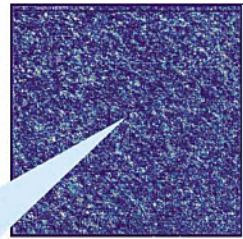
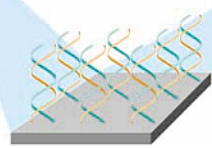
- **Sponsor:** Cancer Research UK's Clinical Development Partnerships (CDP) program
- **Clinical Trial Sites:** Leeds Cancer Centre at St. James's University Hospital, and Barts and The London School of Medicine
 - 36 patients with advanced/metastatic solid tumors; no standard therapy available
- **ClinicalTrials.gov 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

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1. "Program" Affy-chip with NMI-900 diagnostic signature



2. Test cancer patient's genetic material



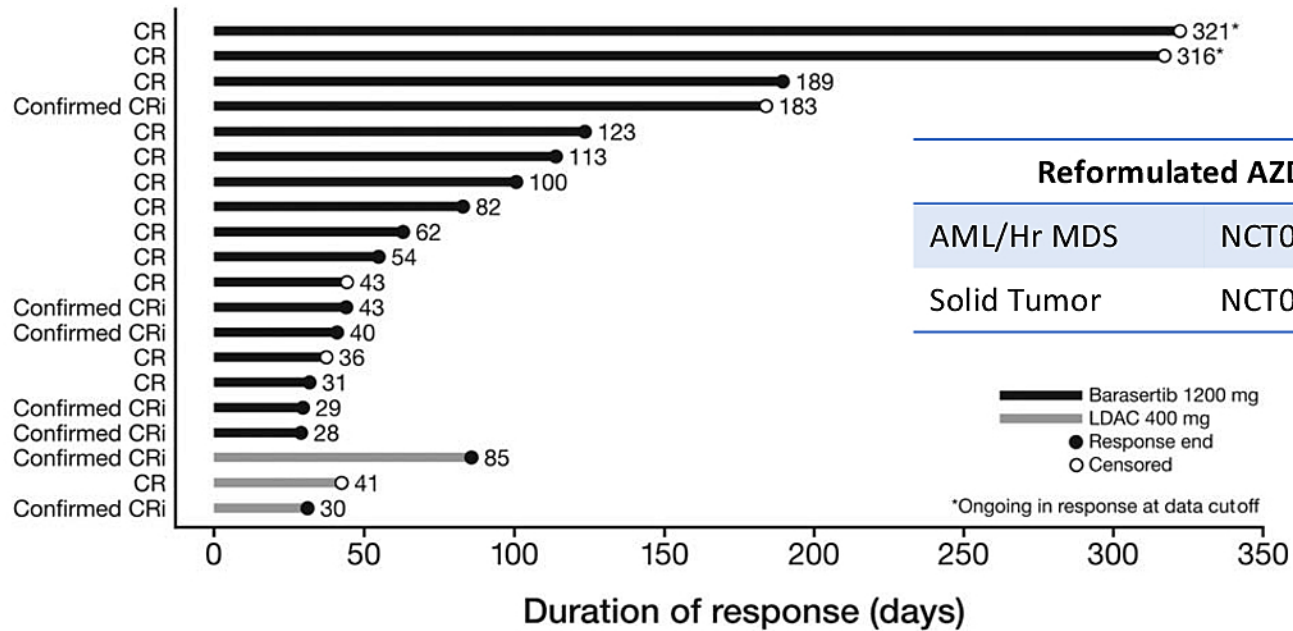
4. How sensitive is a patients cancer to NMI-900?

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

Diagnostic Score



AML Supporting Data: Compelling 45% Clinical response to Aurora B kinase inhibitor AZD1152



Reformulated AZD1152 = AZD2811

AML/Hr MDS	NCT03217838	July 2017
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Solid Tumor	NCT02579226	Oct 2015
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■ Barasertib 1200 mg
 ■ LDAC 400 mg
 ● Response end
 ○ Censored

*Ongoing in response at data cutoff

A confirmed CRi was based on the Cheson criteria and confirmed ≥ 21 days after first observation and with partial recovery of neutrophils and platelets

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

○ Cancer. 2013 Jul 15;119(14):2611-9. doi: 10.1002/cncr.28113. Epub 2013 Apr 19

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