Annual Shareholders Meeting

NewLink Genetics Corporation

NASDAQ: NLNK
May 23, 2018

Cautionary Note Regarding Forward-Looking Statements

This presentation contains forward-looking statements of NewLink Genetics that involve substantial risks and uncertainties. All statements, other than statements of historical facts, contained in this presentation are forward-looking statements, within the meaning of The Private Securities Litigation Reform Act of 1995. The words "anticipate," "believe," "estimate," "expect," "intend," "may," "plan," "target," "potential," "will," "could," "should," "seek" or the negative of these terms or other similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. These forward-looking statements include, among others, statements about NewLink Genetics' financial guidance for 2018; results of its clinical trials for product candidates; its timing of release of data from ongoing clinical studies; its plans related to execution of clinical trials; plans related to moving additional indications into clinical development; NewLink Genetics' future financial performance, results of operations, cash position and sufficiency of capital resources to fund its operating requirements; and any other statements other than statements of historical fact. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements that NewLink Genetics makes due to a number of important factors, including those risks discussed in "Risk Factors" and elsewhere in NewLink Genetics' Annual Report on Form 10-K for the year ended December 31, 2017 and other reports filed with the U.S. Securities and Exchange Commission (SEC). The forward-looking statements in this presentation represent NewLink Genetics' views as of the date of this presentation. NewLink Genetics anticipates that subsequent events and developments will cause its views to change. However, while it may elect to update these forward-looking statements at some point in the future, it specifically disclaims any obligation to do so. You should, therefore, not rely on these forward-looking statements as representing NewLink Genetics' views as of any date subsequent to the date of this presentation.

NewLink Genetics

A Clinical Development Stage Immuno-Oncology Company

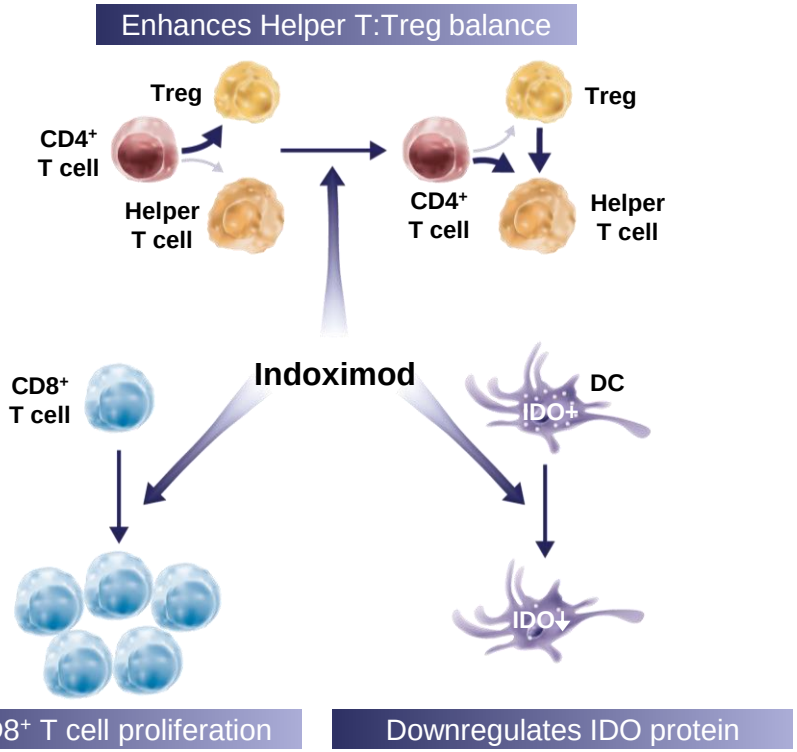
- **Strategic focus on indoximod, an I-O product candidate with a differentiated MOA**
  - Clinical data suggest indoximod combinations may enhance multiple therapeutic modalities
  - Potential to improve patient outcomes across both hematologic cancer and solid tumor indications
- **New data on MOA and emerging clinical data recently presented at AACR**
  - Abstract 3753 – *Indoximod modulates AhR-driven transcription of genes that control immune function*
  - Abstract 10973 – *Front-line therapy of DIPG using the IDO pathway inhibitor indoximod in combination with radiation and chemotherapy*
- **Clinical and operational developments**
  - Finalized novel formulation of indoximod
  - Appointed two new members to the Board of Directors
  - Undertaking clinical program review

Multifaceted approach to cancer driven immunosuppression

Indoximod Mechanism of Action

A Unique Approach to Reversing Immunosuppression

- Orally administered, small-molecule that reverses the immunosuppressive effects of low tryptophan and high kynurenine that result from IDO activity
- Immuno-stimulatory effects of indoximod impact 4 main cell types: CD8$^+$ T cells, CD4$^+$ T helper cells, T regulatory cells, and dendritic cells
  - Reverses the effects of low tryptophan by increasing proliferation of effector T cells
  - Drives differentiation into T helper cells vs regulatory T cells
  - Downregulates IDO expression in dendritic cells
- Potential synergy has been shown with checkpoint blockade, chemotherapy, radiation and vaccines

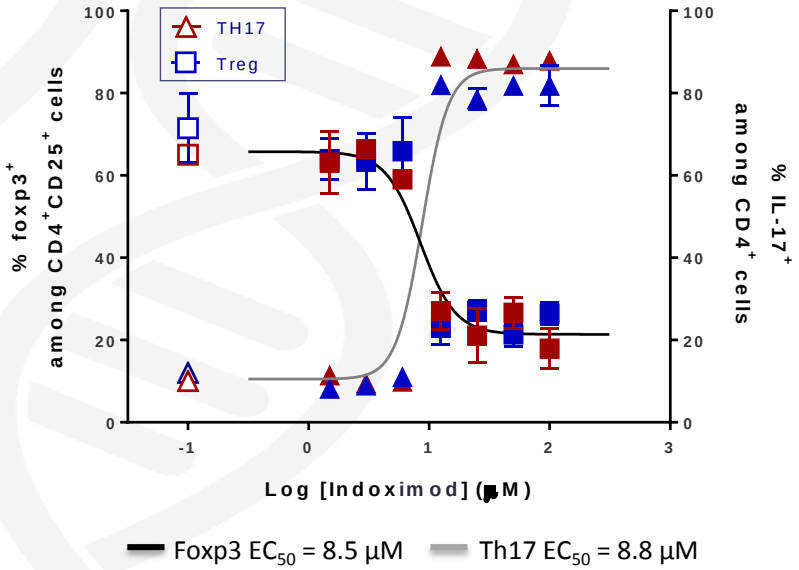


IDO, indoleamine 2,3-dioxygenase; Treg, T regulatory cell; DC, dendritic cell.
Brincks EL, *et al*. AACR 2018. Abstract 3753.

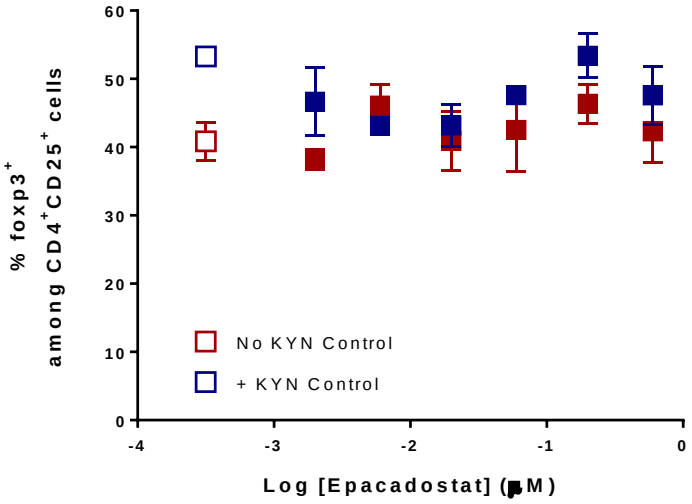
Indoximod vs Epacadostat: A Different Mechanism of Action

Indoximod Drives Differentiation of Helper vs Regulatory T Cells

Indoximod



Epacadostat



Indoximod reduces Tregs and increases effector T cells

Brincks EL, *et al*. AACR 2018. Abstract 3753.

Indoximod plus Chemotherapy in Acute Myeloid Leukemia (AML)

Phase 1/2 Exploring Minimal Residual Disease as a Surrogate Endpoint

- Phase 1/2 trial for patients with newly diagnosed AML
  - Combination with current standard of care (7+3 chemotherapy)
  - Currently enrolling Phase 1b expansion cohort
  - Minimal residual disease evaluated by sensitive flow cytometry assay
- Data presented by Emadi, et al at EHA, June 2017 (abstract E-012)
  - Indoximod does not appear to add significant toxicity
  - 7/9 patients who completed treatment per protocol achieved morphologic complete response (CR)
  - 7/7 patients who achieved a CR had no evidence of minimal residual disease

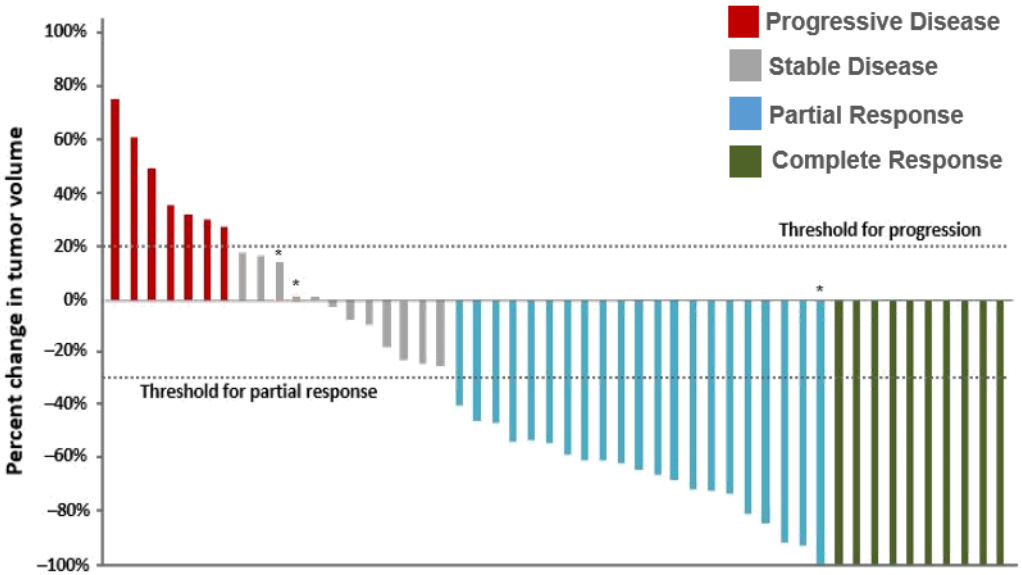
Updated AML data anticipated in 2H 2018

Indoximod (IDO) plus Pembrolizumab (PD-1) in Advanced Melanoma

Phase 2: Impressive Response Rate and Progression Free Survival (N=51)

Response	N (%)
ORR	**31 (61)**
CR	10 (20)
PR	21 (41)
SD	10 (20)
DCR	**41 (80)**
PD	10 (20)

Survival	
Median PFS	**12.9 months**
PFS at 12 months	**56%**



Updated melanoma data including subset analysis will be presented at ASCO

*Patients that progressed due to new non-target lesions.

Note: 1 patient was unevaluable for response due to pleural effusion/collapsed left lung; the patient progressed based on several new non-target lesions.

Zakharia Y, et al. Oral presentation at: Third International Cancer Immunology Conference; September 6-9, 2017; Frankfurt, Germany.

Early Results for Children with Diffuse Intrinsic Pontine Glioma (DIPG)

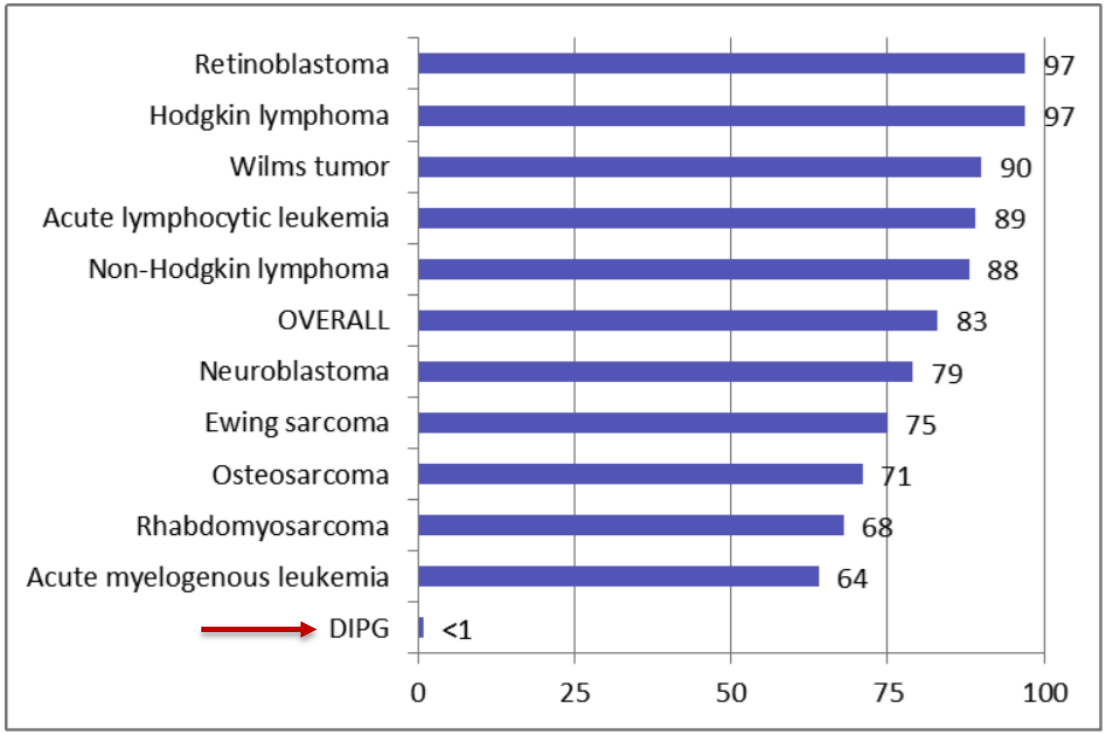
Encouraging Early Data from Pilot Cohort of 6 Patients

- DIPG is rapidly fatal with significant unmet need
  - Standard of care treatment is palliative radiation (usually 54 Gy)
  - Median time to progression after radiation is ~6 months[1]
  - No surgical options for patients with DIPG
- Encouraging early results from pilot cohort
  - Phase 1 data suggest indoximod-based immunotherapy enhances conventional therapy (radiation, chemotherapy)[2]
  - All 6 DIPG patients have finished upfront radiation combined with indoximod
  - All 6 patients showed initial improvement in symptoms[3]

1. Wolff JE, et al. *J Neurooncol*. 2012;106(2):391-397. 2. Cohen KJ, et al. *Neuro Oncol*. 2011;13(4):410-416.
2 Johnson T, *et al*. SNO 2017.
3 Johnson T, *et al.* AACR 2018. Plenary #10973.

DIPG Prognosis Worst of All Pediatric Cancers

Pediatric Cancer 5-Year Survival Rates



Defeat DIPG Foundation

Encouraging Early Data in DIPG

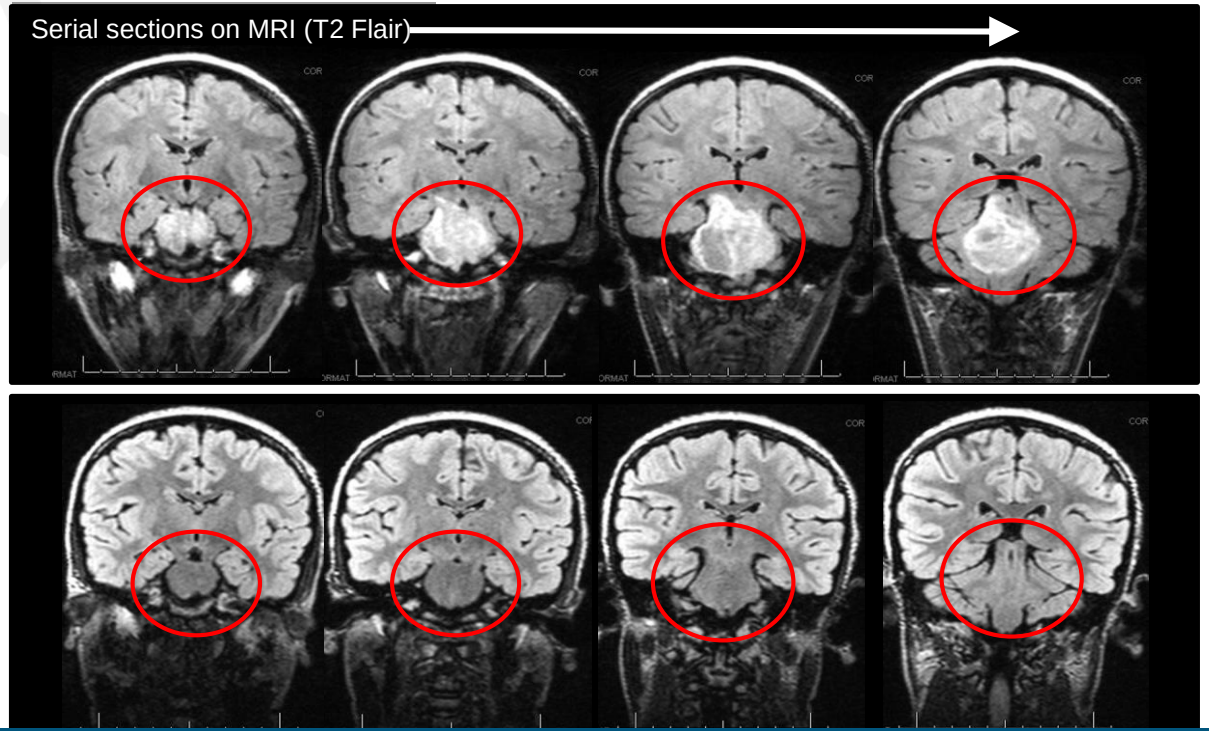
Response for 9.4-Year-Old Male with Newly Diagnosed DIPG

Baseline (pretreatment)

DIPG scans reviewed by Tina Young-Poussaint, M.D., Boston Children's Hospital

Patient 037 classified as: "Significant response"

After 6 weeks of indoximod + radiation (54 Gy)



Patient remains neurologically normal at 6 months from initial treatment

DIPG, diffuse intrinsic pontine glioma; MRI, magnetic resonance imaging.

Johnson T, *et al.* AACR 2018. Plenary #10973.

Upcoming Milestones 2018

- Abstracts accepted for presentation at ASCO Annual Meeting, June 2018
  - Abstract 9512 – *Phase 2 trial of the IDO pathway inhibitor indoximod plus checkpoint inhibition for the treatment of patients with advanced melanoma*
  - Abstract 4015 – *Phase 2 trial of the IDO pathway inhibitor indoximod plus gemcitabine / nab-paclitaxel for the treatment of patients with metastatic pancreas cancer*
- Abstract accepted for presentation at the 18th International Symposium on Pediatric Neuro-Oncology (ISPNO), July 2018
  - *Radio-immunotherapy using the IDO pathway inhibitor indoximod for children with newly-diagnosed DIPG*
- Data from Phase 1b trial of indoximod plus standard-of-care chemotherapy for patients with newly diagnosed acute myeloid leukemia (AML) intended to be presented 2H 2018

Data for indoximod in different therapeutic combinations across multiple cancer indications

Financial Position

Q1 2018 End Cash and Equivalents	$143.9 million
YE 2018 Cash Projected	To be updated on Q2 call
Shares Outstanding as of March 31, 2018	37.2 Million

Resources sufficient to support focused clinical development of indoximod

NewLink Genetics – Key Takeaways

Indoximod, an Immuno-Oncology Candidate with Differentiated MOA

- Indoximod has a differentiated mechanism of action (MOA)
  - Reverses the effects of low tryptophan by increasing proliferation of effector T cells
  - Drives differentiation into T helper cells vs regulatory T cells
  - Downregulates IDO expression in dendritic cells
- Promising clinical activity of indoximod in combination with
  - Chemotherapy in AML
  - Checkpoint blockade in melanoma
  - Radiation and chemotherapy in DIPG
- Additional indoximod data to be presented at upcoming medical conferences
  - Melanoma & Pancreatic Cancer: Final Phase 2 results at ASCO, June 2018
  - DIPG: Updated Phase 1b data at ISPNO, July 2018
  - AML: Updated Phase 1b data intended 2H 2018

Differentiated MOA demonstrating clinical activity for multiple combinations and indications