Corporate Presentation

May 2024

Nasdaq: IMNN

Safe Harbor Statement

This presentation and any statements made during any presentation or meeting contain forward-looking statements related to Imunon, Inc. (“Imunon”) under the safe harbor provisions of Section 21E of the Private Securities Litigation Reform Act of 1995 and are subject to risks and uncertainties that could cause actual results to differ materially from those projected. These statements may be identified by the use of forward-looking words such as "anticipate," "planned," "believe," "forecast,” "expected," and "intend," among others. There are many factors that could cause actual events to differ materially from those indicated by such forward-looking statements, including, among others: unforeseen changes in the course of research and development activities and in clinical trials; possible changes in cost, timing and progress of development, preclinical studies, regulatory submissions, including if our clinical trials enroll more slowly than anticipated; the risk that top line and/or full data from clinical trials is not consistent with interim data; Imunon’s ability to obtain and maintain regulatory approval of any of its product candidates; possible changes in capital structure, future working capital needs and other financial items; changes in approaches to medical treatment and the risk that our estimates of patient populations are inaccurate; the ability to obtain additional funds for operations; reliance on third parties to conduct preclinical studies or clinical trials; and those risks listed under “Risk Factors” as set forth in Imunon’s most recent periodic reports filed with the Securities and Exchange Commission, including Imunon’s Form 10-K for the year ended December 31, 2023.

While the list of factors presented here is considered representative, no such list should be considered to be a complete statement of all potential risks and uncertainties. Forward-looking statements included herein are made as of the date hereof, and Imunon does not undertake any obligation to update publicly such statements to reflect subsequent events or circumstances except as required by law.

Investment Thesis

Funding IMNN-001 IL-12 Registrational Study for 1st line Ovarian Cancer

- **IMNN-001 is being evaluated in a large randomized Phase II study of newly diagnosed ovarian cancer patients, the Ovation 2 Study**
  - The Study is fully enrolled. Top line data is imminent
  - The primary end point for Ovation 2 is PFS. Patients are being followed for OS per protocol
  - Interim data is encouraging
  - Positive data would support a confirmatory registrational study
- **IMNN-001 Phase 1 study provided promising dose dependent results**
  - Translational data provides clear evidence of strong immune response
  - Clinical data shows response consistent with clinical objectives.
- **A second Phase II Study is in progress, evaluating Cancer-Free via Minimal Residual Disease assessment**
  - Largely funded by the Breakthrough Cancer Foundation. Data belongs to Imunon, Inc.
  - Led by MD Anderson, Johns Hopkins, and Memorial Sloan Kettering. IBM will conduct data analysis
  - Combines IMNN-001 with Avastin* for 1st line ovarian cancer patients.
  - Primary endpoint is MRD via SLL, a novel means to assess efficacy very early in treatment
  - Learnings will inform the development plan for IMNN-001
- **Ovarian Cancer represents a large unmet medical need**
  - IMNN-001 has been granted Fast Track by the FDA
  - Orphan status has been established in the US and EU

* Avastin or a biosimilar

Investment Thesis

Funding IMNN-001 IL-12 Registrational Study for 1st line Ovarian Cancer

- **Imunon has the capability to manufacture investigative product for the registrational study.**
  - Cost are an "order of magnitude" lower than if 3rd party sourced
  - Tested and reliable supply chain
- **Registrational Study design will be based on strong evidence from prior studies.**
  - Stat Analysis Plan provides data reflecting the genomic status and treatment options for patients
- **Registrational study can be initiated as early as Q1 2025**
  - Assuming a 500 pt study, enrollment completion is expected within 3 years
  - Data at an interim and final data within 4 years
  - Trial Cost Estimate~ $50 Million
    - Pt treatment $27M
    - Study management and CRO $12M
    - Data and Safety management $7M
    - Product Cost, inc capital investments, $6M

Investment Thesis

Funding IMNN-001 IL12 Registrational Study for 1st line Ovarian Cancer

- High Level Study Design
  - Newly diagnosed, advanced Ovarian Cancer, eligible to neoadjuvant treatment
  - IMNN-001 add-on to peri-operative standard of care (neoadjuvant + adjuvant)
  - 1st line maintenance will apply standard of care, including PARP inhibitors when indicated
  - Primary endpoint likely to be Overall Survival

- High Level Statistical Analysis Plan assumptions
  - 3 to 4 years enrollment period
  - HR objective consistent with OVATION-2 data
  - At least 80% power

Developing medicines harnessing the capability of DNA to power body's immune system

Company Overview

IMUNON Highly Focused

Business strategy capitalizes on our competencies and technology platform, and their synergies across disease modalities

IMMUNO-ONCOLOGY	**An asset with high potential,** development in high disease burden cancers where an immunological approach **through durable cytokine expression at tumor site improves outcomes.**
DNA Based VACCINES	**A partnership opportunity,** for pharmaceutical companies, institutions and/or government agencies to develop a saleable vaccine platform with potential to address pathogens with pandemic potential.
VERTICAL INTEGRATION	**Of the core elements of our business,** to control costs, deliverables and IP, realized through in-house early development scale of plasmids, synthetic delivery systems and investments in key partners.
PHASE 3 COMPETENCY	**Highly capable staff,** experienced with conducting global studies, working with regulatory agencies around the world, demonstrated record of strategic and operational execution.

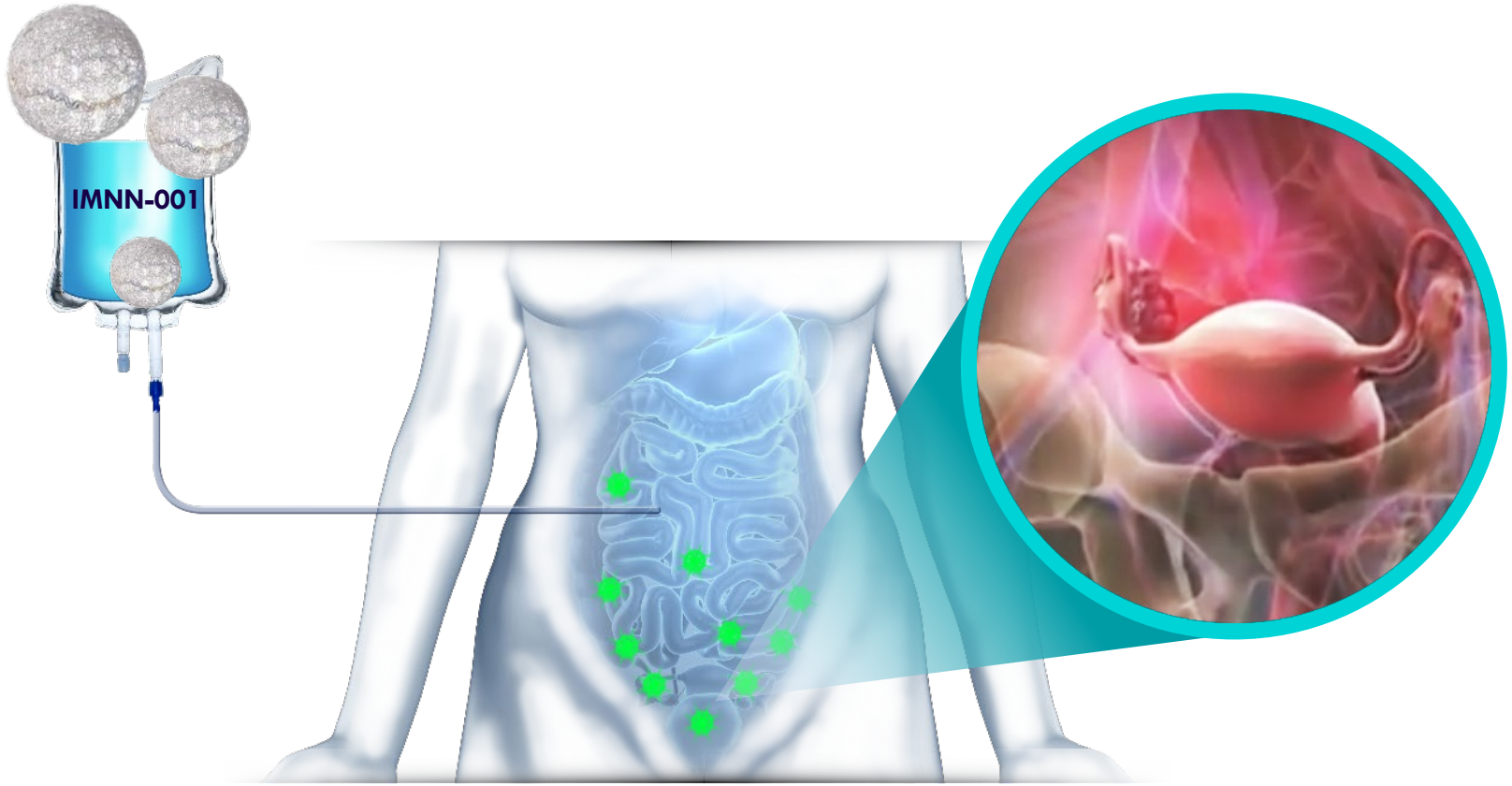
IMUNON's Pipeline of DNA-based Transformative Medicines

Platform	Program	Indication(s)	Discovery	IND enabling	Phase 1	Phase 2	Partner
TheraPlas	**IL-12 (OVATION 1 & 2)**	Newly Diagnosed Advanced Ovarian Cancer	IMNN-001				
	IL-12 IP in combination with **Avastin***	Newly Diagnosed Advanced Ovarian Cancer	IMNN-001				BREAK THROUGH CANCER #RadicalCollaboration
PlaCCine	**SARS-Cov2** Clinical Proof-of-Concept	COVID-19 Seasonal Vaccine	IMNN-101				

* Avastin or a biosimilar

IMNN-001 Modifies the Micro-Environment of Ovarian Cancer

Local production of safe and durable levels of a powerful anti-cancer immune agent, IL-12



- IMNN-001 engineers the peritoneal cavity cells to produce IL-12 physiologically
- Intracavity infusion of IMNN-001 has demonstrated durable and local expression of IL-12 in the peritoneum
- No supraphysiological increases in IL-12 commonly associated with the bolus rIL-12 minimizes excessive systemic exposure of IL-12, thereby giving a favorable safety profile to IMNN-001

IMNN-001 directly modifies the Tumor Micro-Environment at the neo-adjuvant stage, when it matters the most

Introduce the First Immunotherapy to the Market for the treatment of Newly Diagnosed Ovarian Cancer Patients

Epithelial ovarian cancer (EOC) is insidious and usually diagnosed at an advanced stage. Though EOC initially responds to treatment, the recurrence rate is high. Recent treatments delay progression but overall survival has not improved. Hence there is a need for effective therapy for patients with EOC.

20,000 cases
diagnosed each year in U.S.

13,000 deaths

80%
diagnosed in late stage (III/IV)

50%
will die within 5 years of diagnosis

> 100,000
Patients in the U.S. alone

Standard of care has remained
stagnant for decades

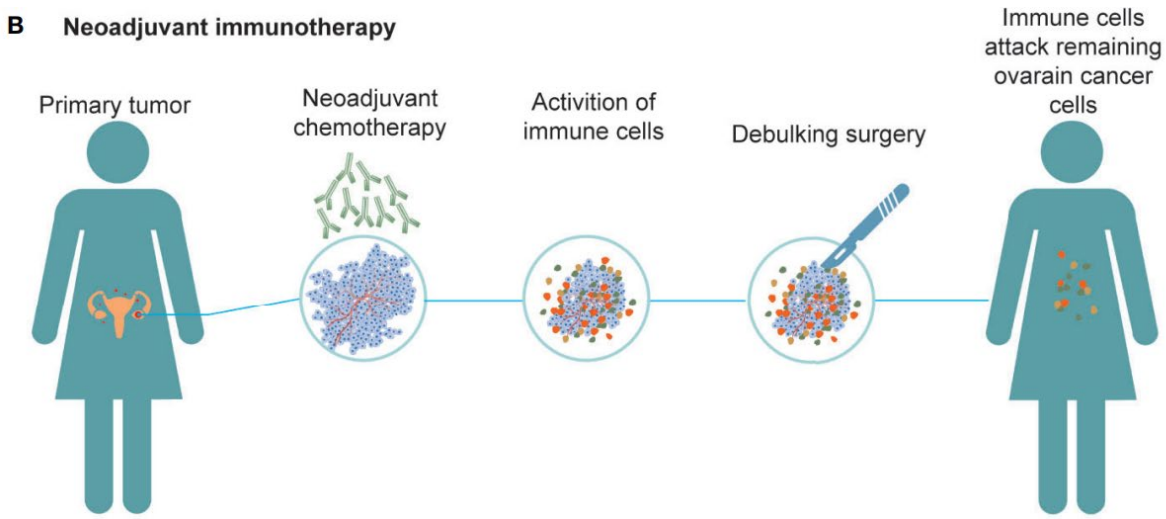
5th
leading cause of cancer mortality in women

IMNN-001 has the potential to provide a break-through in today's perioperative standard of care

Sources: Cancer Statistics, American Cancer Society; Globocan; SEER database. CDC

Ovarian Cancer in Newly Diagnosed Patients is the Optimal Setting for Immunotherapy and IMNN-001

IMNN-001 has the potential to become the first immunotherapy in newly diagnosed patients



- Over 50% of 1st line advanced Ovarian Cancer patients need neo-adjuvant therapy before debulking
- Before surgery, IMNN-001 can harness the still intact local immune system to display an anti-tumorigenic microenvironment
- By directly accessing the intra-peritoneal tumor micro-environment and local immune system, IP administered IMNN-001 is well positioned to offer clinical value to Ovarian Cancer patients at an early stage of their disease

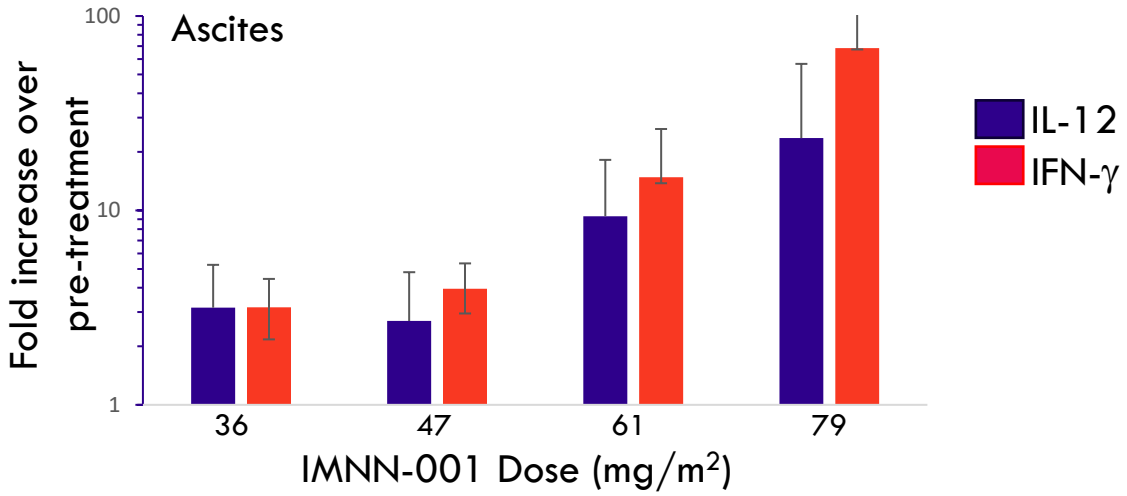
Source: Front. Immunol., 06 October 2020
Sec. Cancer Immunity and Immunotherapy
Volume 11 - 2020
| https://doi.org/10.3389/fimmu.2020.577869

OVATION 1 Study in Neoadjuvant Ovarian Cancer

Dose Dependent Biological (IL-12 & IFN-γ) and Clinical Responses Demonstrate POC

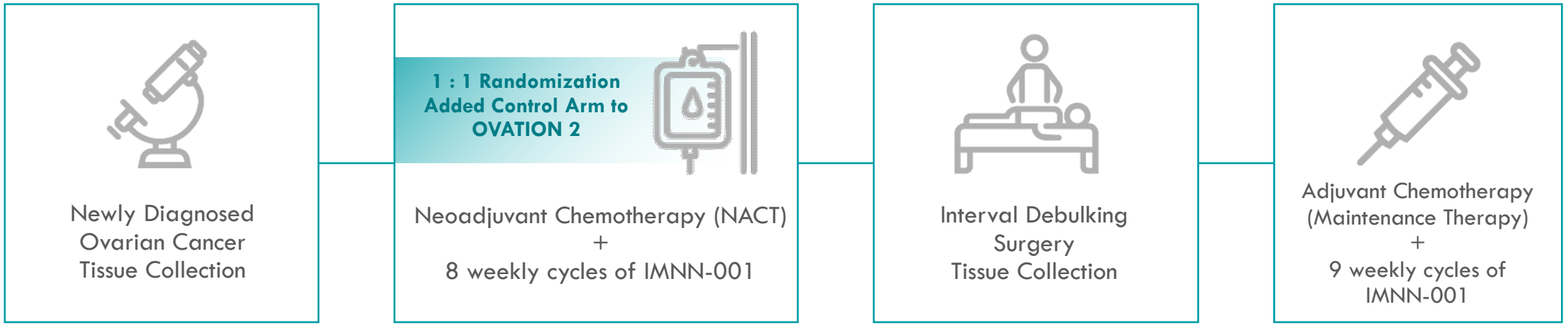
Tumor response, surgical outcome, pathologic response, and chemotherapy response score with NACT/IMNN-001 escalating doses

Radiographic Response		Total (n)	Cohort 1 36 mg/m²	Cohort 2 47 mg/m²	Cohort 3 61 mg/m²	Cohort 4 79 mg/m²
Tumor Response	CR	2	1	0	0	1
	PR	10	0	3	3	4
	SD	2	2	0	0	0
Objective Response Rate			67%		100%	
Surgical Resection	R0	9	2	0	2	5
	R1	3	1	2	0	0
	R2	2	0	1	1	0
R0 Resection Rate			33%		88%	
Pathologic Response	cPR	1	1	0	0	0
	Micro	8	1	2	1	4
	Macro	5	1	1	2	1
cPR/micro rate			60%		63%	
Chemotherapy Response Score	CRS 3	5	1	0	2	2
	CRS 2	5	2	1	0	2
	CRS 2	4	0	2	1	1
CRS 3 rate			17%		50%	



IMNN-001: OVATION 2 Ovarian Cancer Study

To Determine Efficacy and Biological Activity With NACT in Stage III/IV Patients



Ovarian Cancer Patients
(FIGO IIIC & IV)

- 110 patients. **Enrollment completed**
- ITT population contains mix group of BRCA +/- subjects

Primary Endpoint

- Progression Free Survival (PFS). After 80 PFS events or at least 16 months, whichever is longer

Secondary Endpoints

- Overall Survival (OS), ORR, Pathological Response, Chemotherapy response score, Surgical Resection Scores, Biological Response, Safety

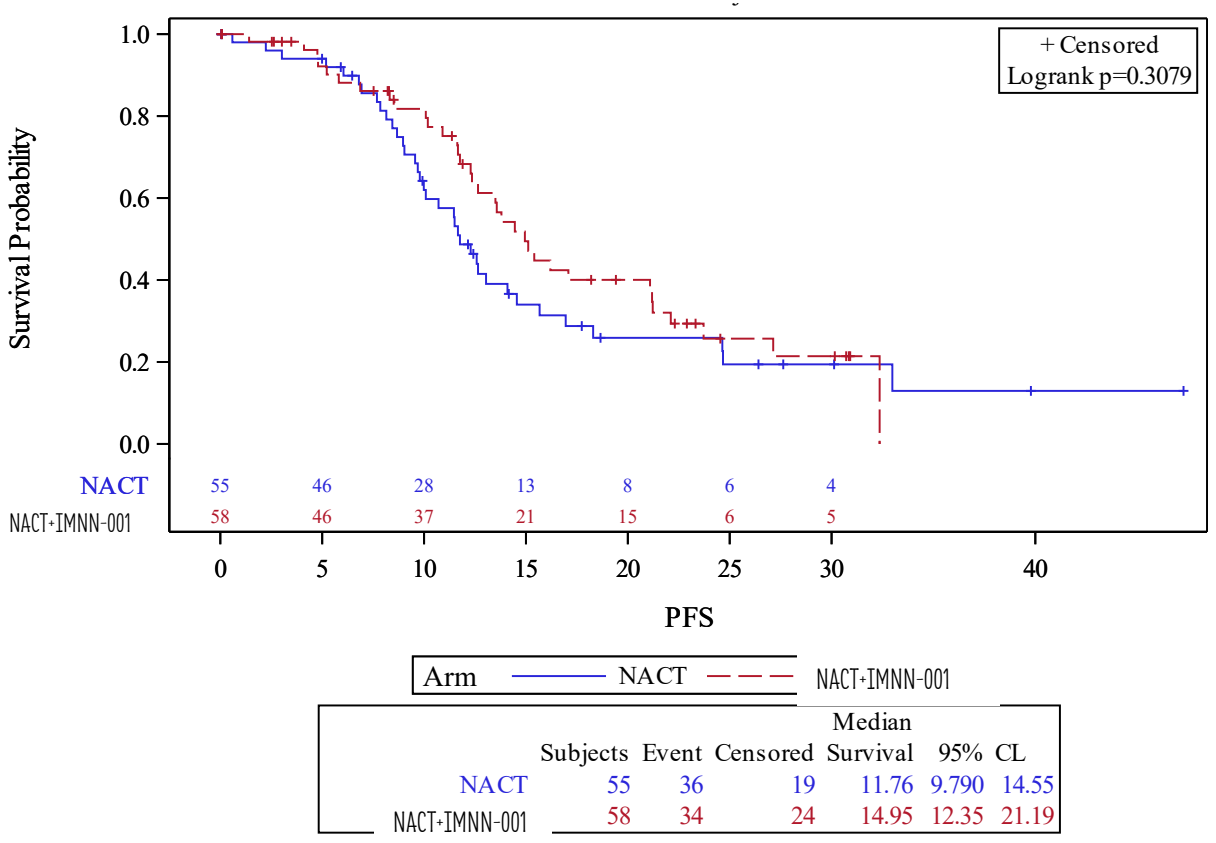
PFS - Interim OVATION 2 Data (September 2023)

ITT population

	NACT ONLY	NACT + IMNN-001
Median Time to Progression 70 events	11.8 mos.	15 mos.
Chemotherapy Response Score of CRS3	14%	30%

Data maturity for this analysis: 70 PFS events
Final PFS analysis imminent

PFS prolongation by 3 months
HR **0.78**

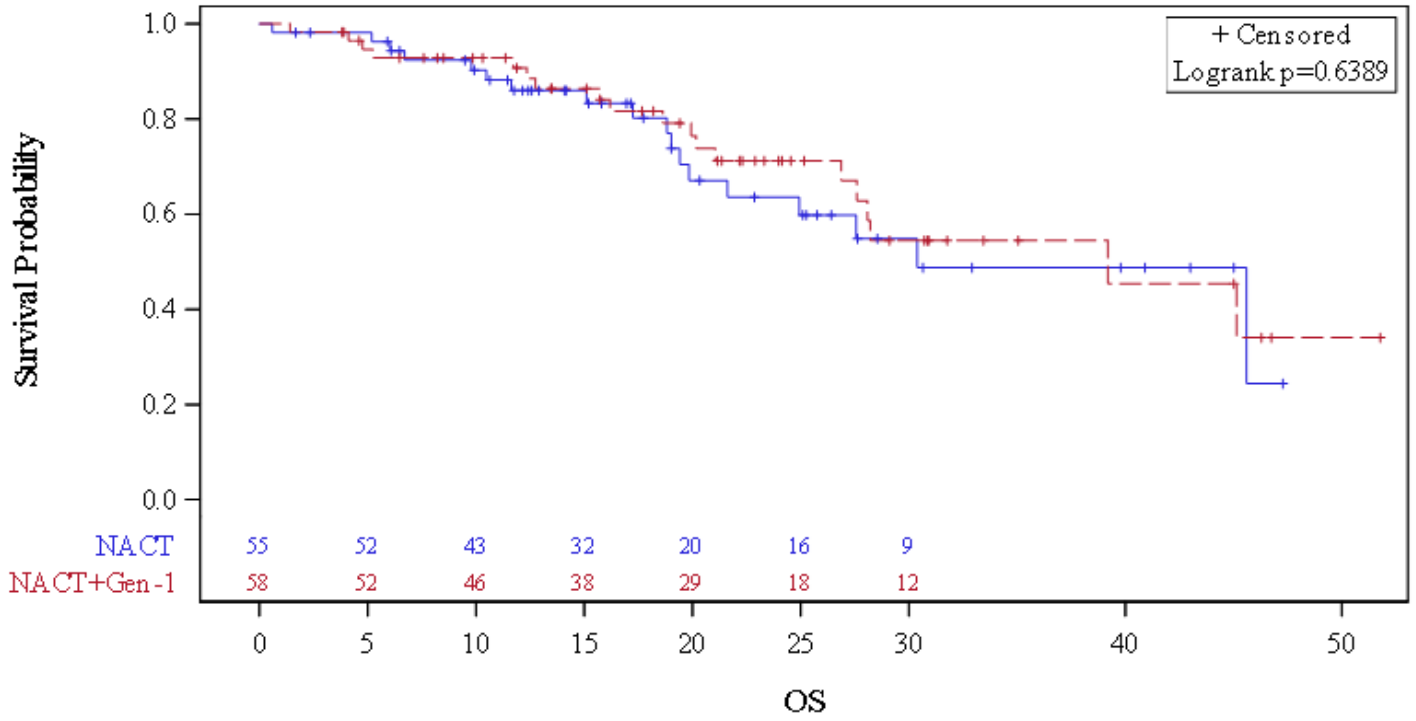


	Subjects	Event	Censored	Median Survival	95%	CL
NACT	55	36	19	11.76	9.790	14.55
NACT+IMNN-001	58	34	24	14.95	12.35	21.19

Overall Survival - Interim OVATION 2 Data (September 2023)

ITT population

	NACT ONLY	NACT + IMNN-001
Median OS	30 mos.	39 mos.
HR	0.86	



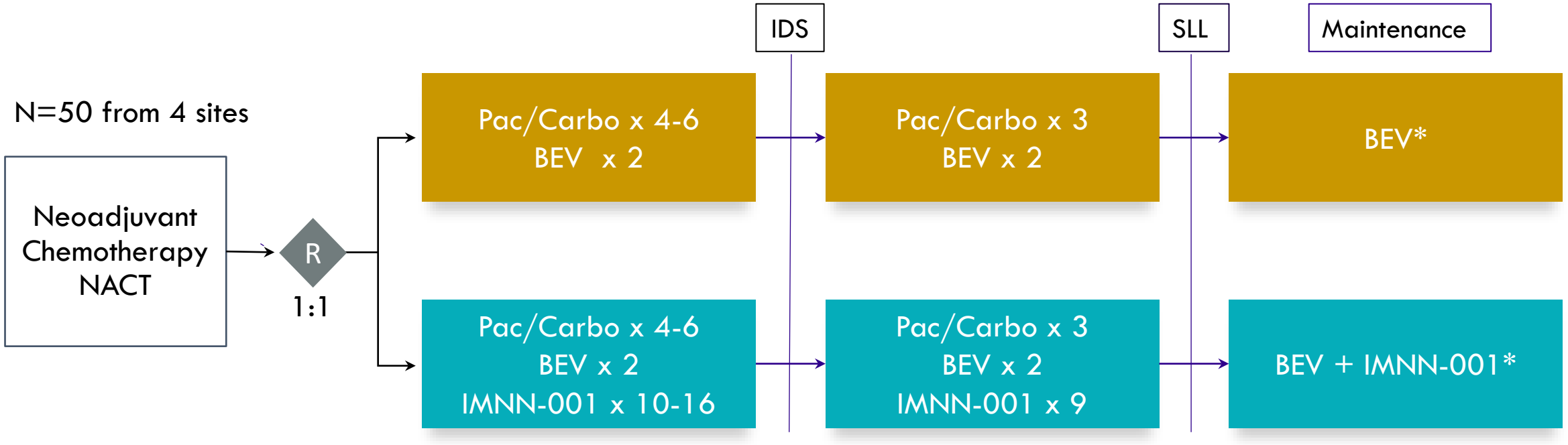
	Subjects	Event	Censored	Median Survival	95% CL	
NACT	55	18	37	30.39	19.84	U
NACT+Gen-1	58	19	39	39.19	26.87	U

Data maturity for this analysis: 37 OS events
OS analysis update will be provided with final PFS analysis

Gyawali et al. JAMA Network Open. 2018

Ongoing Phase 2 Study in Combination with bevacizumab

Avastin® (BEV) + IMNN-001 Study Design in Advanced Epithelial Ovarian Cancer



Primary Endpoint: Rate of Minimal Residual Disease (MRD) assessed at Second Look Laparoscopy (SLL)

Secondary Endpoints: ORR, chemotherapy response score, PFS, OS

* Patients with BRCA+ or HRD will receive Olaparib, a PARP inhibitor in addition to BEV but no IMNN-001.

PlaCCine: “mRNA Better”

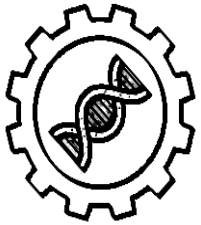
The Next Generation of Nucleic Acid Vaccines

IMUNON's Novel DNA Vaccine Platform is Addressing These Challenges

Relies on Synthetic Delivery Systems: Non-viral – Non-device – Non-LNP

Durability of protection

Speed to Market



Exceptional Product Stability

DNA Provides extended antigen expression

Inducing robust immunological response

Non-viral DNA is a platform

DNA sequencing to approved products in record time

Simple handling & distribution

Stability and long shelf-life at workable temperatures - Greater Capital Efficiency

More than 80 Pathogenic Viruses Discovered since 1980

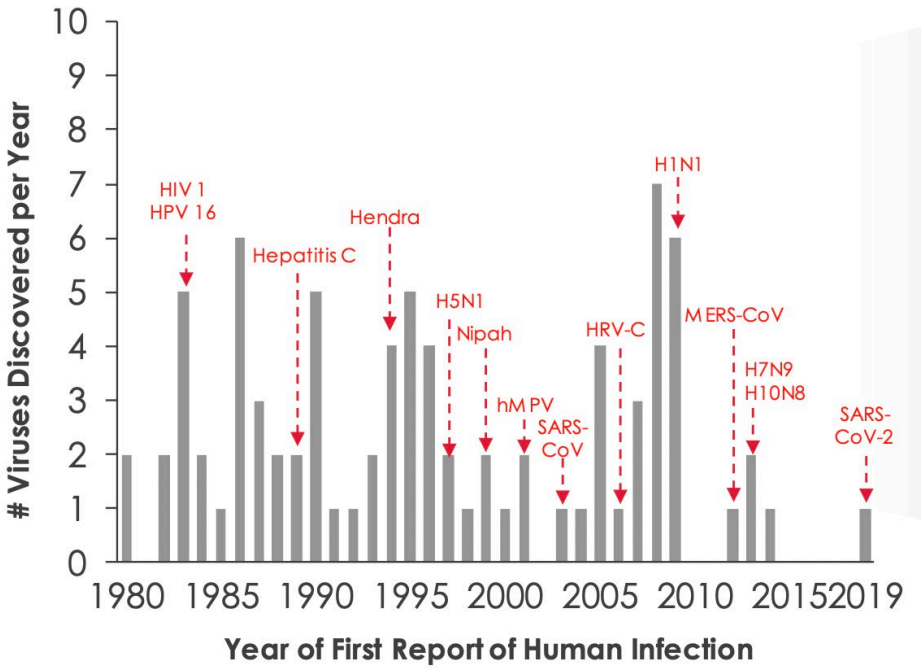
Less than 4% have a vaccine commercially available

Before 1980

Select viruses:

- Yellow fever (1901)
- Rubella (1941)
- Dengue (1943)
- PIV3 (1950s)
- Chikungunya (1952)
- Hepatitis B (1965)
- Marburg (1967)
- Lassa (1969)
- Ebola (1976)
- Zika (1952)
- VZV (1954)
- RSV (1956)
- CMV (1956-1957)
- EBV (1964)

1980 - 2019



Sources: Institute of Medicine (US) Forum on Microbial Threats(2009);Medscape Medical News(2008);Lederburg,J. *Emerging Infectious Diseases from the Global to the Local Perspective:A Summary of a Workshop of the Forum on Emerging Infections*(2001); National Institute of Health(US)Biological Sciences Curriculum Study(2007);Holshue,M. *et al NEJM* (2020);Bush,L. *Emerging...andRe-emerging Infectious Diseases*(2015);Gibbs,AJ.*Virology*(2009); CDC Zika Overview;CDC Ebola About;Plotkin,S.A. *Clinical Infectious Diseases*(2006);Woolhouse,M.*et al.PhilTransRSoc*(2012);WHO H7N9 China Update(2018);Tapparel,C. *et al. Virology*(2013); Hepatitis B Foundation.History Page;Ho,M.*MedMicrobiolImmunol.*(2008);Nature.Dengue Viruses Page;Brauberger, K. *et al. Viruses*(2012);FDA approved vaccine list; CDC RSV Overview; Hendrickson,K.J. *Clinical Microbiology Reviews*(2003); Andersson,J.*Herpes*(2000);WHO Chikungunya Overview;CDC Varicella Overview;Xu,Y.*et al. Infect Genet Evol.*(2015);CDC Lassa Fever Overview

Comparable Protection & More Durable Immune Responses to PlaCCine Benefits over mRNA Vaccines

- Comparable protection efficiency (>90%) to a commercial mRNA vaccine in a side-by-side study in monkeys
- Higher and more durable immune cell responses (T-cell) compared to a commercial mRNA vaccine
- Immunogenicity observed across multiple species

PlaCCine Stability at Workable Temperatures is a Clear Commercial Advantage over mRNA Vaccines

4°C Storage

At least…

1 YEAR

Room Temperature Storage

At least…

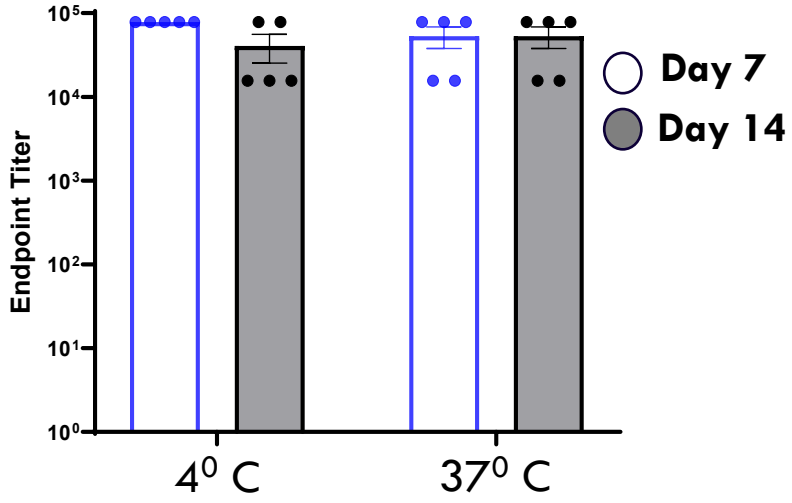
1 MONTH

37°C Storage

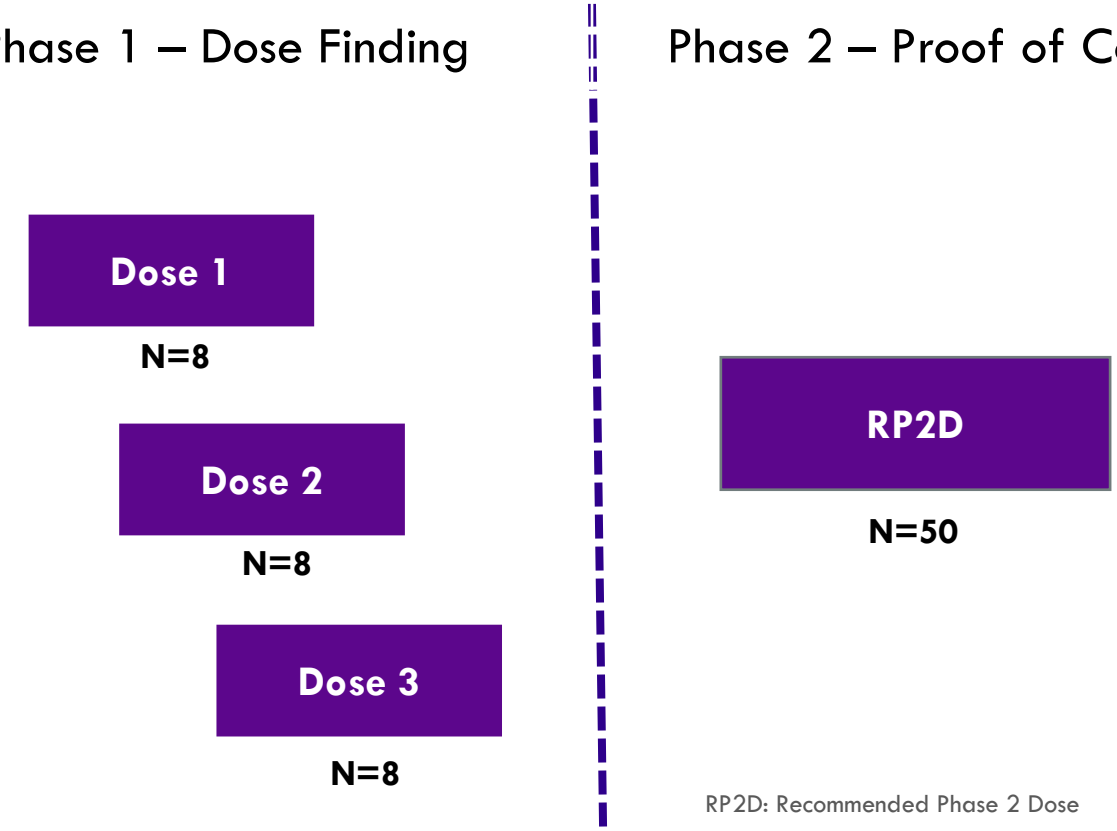
At least…

2 WEEKS

Simplified and Cheaper Supply Chain Around the World



IMNN-101: Phase 1/2 Explores the Immunogenicity of a COVID-19 Seasonal Booster



Study Objectives:

- Reactogenicity
- Humoral Immunogenicity (intensity, durability)
- Cellular Immunogenicity
- Dose finding and Proof of Concept

Development Strategy:

If initial results support potency and tolerability, explore partnerships and consider platform opportunities

Summary of Development Programs

IMNN-001 offers a novel way to harness the powerful immunological properties of IL-12: the "Master Switch" to the body's immune system

- Robust biologic and clinical proof of concept in OVATION 1.
- Promising OVATION 2 interim, with potential for clinical benefit in monotherapy and combinations.
- Focus on Peri-operative treatment of Ovarian Cancer with the potential to break the Status Quo of immunotherapy
- Plans to develop combinations, including new phase 2 with VEGF inhibitor in partnership with the Break-Through Cancer Foundation

IMNN-101 has demonstrated that platform can produce a robust immune response.

- Protection against live virus demonstrated
- Evidence of at least 12-mth immunological durability
- Evidence of at least 12-month stability at 4°C
- POC established in Non-Human Primates
- Positive clinical results will allow BD opportunities for COVID and other pathogens

IMUNON cGMP Manufacturing Facility

Order of Magnitude Lower Costs

cGMP lots of vaccine plasmids of high yield & purity

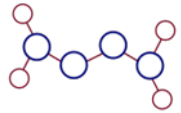
Plasmid pDNA System

Fermentation Facility

Plasmid Purification

GMP Filling Room

Plasmid Delivery Agent



- ✓ Internal capability to produce plasmid DNA and Delivery Agent to support Clinical Studies.
- ✓ 1,000 ft^2 of space dedicated to GMP manufacturing
- ✓ Supported by GMP Quality Control Laboratory

Financial Summary & Upcoming Key Milestones:

Robust Flow of Value Creating Activities

$10M Cash & Investments
As of March 31, 2024

9.4M Shares Outstanding

$3.25M Budgeted Expenses/quarter

Key Events

1st Half 2024

IMNN-101
Start of Phase 1/2

IMNN-001+Avastin
Continued Enrollment

2nd Half 2024

IMNN-001 OVATION 2
Topline Results

IMNN-101
P1 Immunogenicity Data

IMNN-001+Avastin
Possible Interim Data

Experienced Management Team

Stacy R Lindborg, Ph.D.
CEO and President

Lilly
Biogen
brainstorm cell therapeutics

Khursheed Anwer, PhD MBA
Executive Vice President and
Chief Scientific Officer

valentis
GENEMEDICINE

David Gaiero, CPA
Chief Financial Officer &
Corporate Secretary

CYTEIR THERAPEUTICS
WAVE LIFE SCIENCES
OVA SCIENCE TRANSFORMING FERTILITY
iRobot
pwc

Sebastien Hazard, MD, MBA
Executive Vice President and
Chief Medical Officer

Bicycle
GSK
TESARO
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