



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

Investor Presentation

Nasdaq: IMNN

OCTOBER 2026

Safe Harbor Statement

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Investment Thesis

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

First-in-Class Immunotherapy with proven safety profile and unprecedented efficacy data in a randomized, well controlled Phase 2 trial in newly diagnosed ovarian cancer population

Unlocking First-In-Class IL-12 Immunotherapy

- IL-12: Biology was never the problem. Systemic Protein delivery was.
- IMNN-001 is different: Locally delivered DNA plasmid producing IL-12 where the disease lives.
- Level of Clinical Evidence observed in Phase 2 is unprecedented. Phase 2 was not powered for OS; Phase 3 is powered and includes 2 interim analyses for early stopping for efficacy and support for a future BLA submission, full approval

Ovarian cancer represents a multi billion-dollar unmet medical need

- IMNN-001 has been granted Fast Track by the FDA
- Orphan status has been established in the U.S. and EU

Data driven registrational study design based on strong evidence

- +14.7-month median OS benefit with IMNN-001 vs. SoC Alone (45.1 vs. 30.4 months)
- +24.2-month median OS benefit with PARP inhibitors (65.6 vs. 41.4 months)
- Consistency of Evidence:
 - OVATION 2: All Primary and Secondary Endpoints, and Safety Profile, Favor IMNN-001
 - MRD trial: independent phase 2 trial preliminary data favors IMNN-001 with Lower residual disease rate (44% vs. 67%), higher circulating tumor (ctDNA) clearance (88% vs. 63%), and no evidence of disease after frontline therapy (100% vs 56%)
 - Biologic effects as measured by biomarkers demonstrate evidence of remodeling of Tumor Microenvironment

Registrational study ongoing

- Newly diagnosed, advanced ovarian cancer, eligible for to NACT treatment, 500 patient trial
- Definitive primary endpoint is overall survival
- Design includes 2 planned interim analyses enabling early stopping for success, BLA filing for full approval

IL-12 Has Compelling Biology but Historical Delivery & Safety Limitations

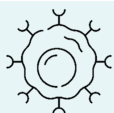
IL-12 activates both innate and adaptive immune systems in immunogenic tumors, but its development has been limited by delivery and safety challenges

EOC is an immunogenic cancer where immune-cell infiltration in tumors is associated with improved outcomes, supporting therapeutic approaches that restore anti-tumor immune activity

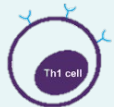
IL-12'S MULTIFACETED IMMUNE ACTIVATION SUPPORTS ITS POTENTIAL IN EOC



Activation of Innate Immune Response: Enhances NK-cell proliferation and cytotoxic activity



Activation of Adaptive Immune Response: Activates proliferation and anti-tumor cytotoxicity of CD8+ T cells



Drives Maturation of CD4+ cells: Drives naïve CD4+ T cells toward a Th1 phenotype

Increases IFN-γ levels: Promotes the production of IFN-γ, enhancing antigen presentation and inhibiting angiogenesis

HISTORICAL CHALLENGES WITH SYSTEMIC RECOMBINANT IL-12 THERAPY



Systemic toxicity: Due to IL-12's potent immune-stimulatory activity, prior systemic IL-12 therapies have been limited by widespread inflammation and severe immune-related toxicities



Limited durability of IL-12 levels: Recombinant IL-12 has a short circulating half-life, which has limited the ability for previous systemic IL-12 therapies to maintain durable levels of IL-12 without frequent or higher dosing



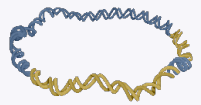
Inability to locally achieve sustained therapeutic levels: Due to dose limiting toxicities and IL-12's short half-life, prior IL-12 therapies have struggled to achieve therapeutically relevant levels in the tumor microenvironment (TME)

Previous barriers to IL-12 development have been with delivery and safety, rather than a lack of biological rationale

IMNN-001's Differentiated Approach to IL-12 Delivery

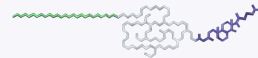
Local, durable, and safe IL-12 delivery at the tumor site with repeat dosing representing a key differentiating feature of IMNN-001's DNA-mediated approach

IMNN-001 uses the Theraplas® platform for non-viral delivery of an IL-12–encoding plasmid, enabling repeat intraperitoneal administration and local cytokine expression



IL-12 plasmid vector

Carries the IL-12 gene and regulatory elements for expression



Synthetic DNA delivery system

Protects plasmid from degradation and facilitates uptake across cell membrane



IMNN-001

Plasmid encased in the nanoparticle delivery system

IMNN-001 is administered intraperitoneally (IP) and taken up by local cells, which are then transfected to produce IL-12 protein in the vicinity of the tumor

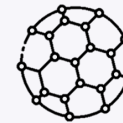
IMNN-001's differentiated approach allows it to overcome historical barriers to IL-12 therapy



Local IL-12 delivery mitigates systemic toxicity: IP administration of IMNN-001 ensures local expression of IL-12 while limiting systemic activation and reducing immune related adverse events (irAEs)



DNA plasmid delivery enables sustained IL-12 levels: By delivering IL-12 via a DNA plasmid, IL-12 is generated locally by cells in the tumor microenvironment, with each treatment producing durable levels of IL-12 for over 7 days



Non-viral delivery allows repeat dosing: IMNN-001's nanoparticle delivery system avoids anti-vector immunity associated with viral approaches, enabling repeated dosing



Combination Opportunity: IMNN-001's local immune priming may support combinations with existing and emerging therapies by countering EOC's immunosuppressive tumor microenvironment

IMNN-001 Consistent Safety Profile: OVATION-2, OVATION-3 and MRD Trial Safety

IMNN-001 Continues to Allow Safe and Tolerable Repeated Delivery of Tumor-Localized IL-12

OVATION 2, PHASE 2 - KEY SAFETY OBSERVATIONS:

- None of the systemic dose-limiting toxicities associated with IV recombinant IL-12 were observed with IP IMNN-001
- Cytokine release syndrome (CRS) did not occur with IMNN-001 treatment
- No elevation of immune related A/E
- Most common treatment-emergent adverse events:
 - *Abdominal pain, nausea, vomiting*
 - *Significant improvement in control of abdominal pain when an analgesic regimen was instituted*

MRD TRIAL SAFETY OBSERVATIONS:

- Favorable benefit/risk profile further strengthened by MRD trial
- Patients successfully treated with IMNN-001 maintenance therapy, and patients were safely treated with IMNN-001 in combination with Bevacizumab

INDEPENDENT DATA MONITORING COMMITTEE REVIEWS:

- OVATION-3 IDMC (May 2026): no safety concerns; continue without modification
- MRD study IDMC (Aug 2026): no safety concerns; continue without modification

IMNN-001 Current and Potential Future Indications

Theraplas Platform Capable of a Pipeline of DNA-Based Transformative Medicines

PLATFORM	DELIVERY	PROGRAM	INDICATION(S)	DISCOVERY	IND ENABLING	PHASE 1	PHASE 2	PHASE 3
TheraPlas	IP	IL-12 (OVATION 3)	Newly Diagnosed Adv. Ovarian Cancer	IMNN-001 enrolling				
		IL-12 in combination with Avastin*	Newly Diagnosed Adv. Ovarian Cancer	IMNN-001 enrolling				
		IL-12 (OVATION 2)	Newly Diagnosed Adv. Ovarian Cancer	IMNN-001 complete				
		IL-12 in combination with Immune checkpoint Inhibitors	Newly Diagnosed Adv. Ovarian Cancer	IMNN-001 Ready				
		IL-12	Colorectal Cancer	IMNN-001 Ready				
		IL-12	Pancreatic Cancer	IMNN-001 Ready				
	Intra-tumoral	IL-12	Glioblastoma	IMNN-001				

IL-12 in combination with Avastin*: in partnership with Break Through Cancer.

Great Unmet Need: Recurrence Rates are High and Survival Rates are Low

Patient Outcomes and Frontline Standard of Care Unchanged for 30 years

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

new cases diagnosed each year in US, 13,000 deaths

300,000

new cases diagnosed worldwide

80%

diagnosed in late stage (III/IV)

70%

recurrence rate within 2-5 years after initial treatment

>60%

will die within 5 years of diagnosis

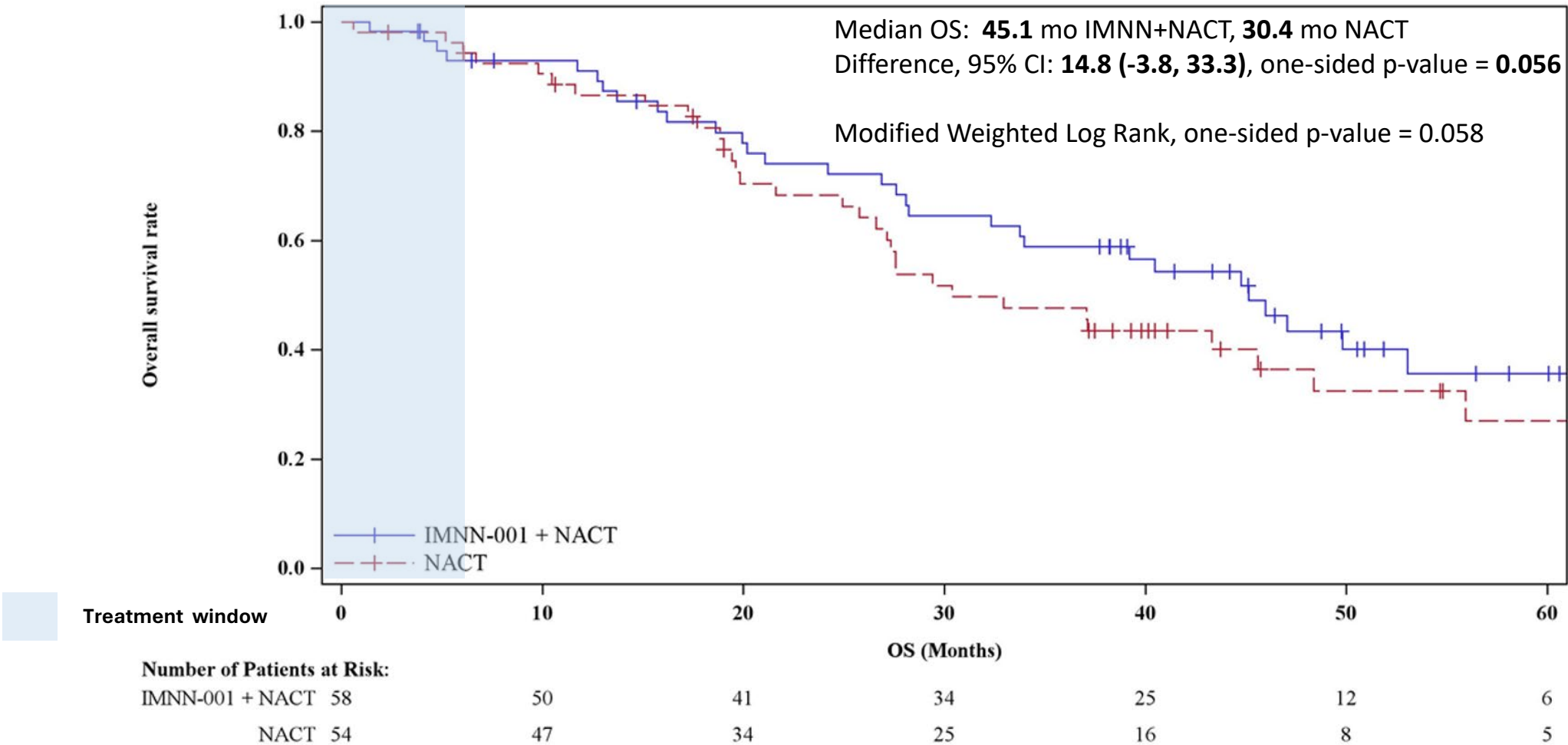
IMNN-001, Imunon's novel IL-12 immunotherapy, has the potential to be first-in-class IL-12 Immunotherapy and provide a break-through in today's frontline standard of care

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

IMNN-001: A Potential Breakthrough in Newly Diagnosed Ovarian Cancer

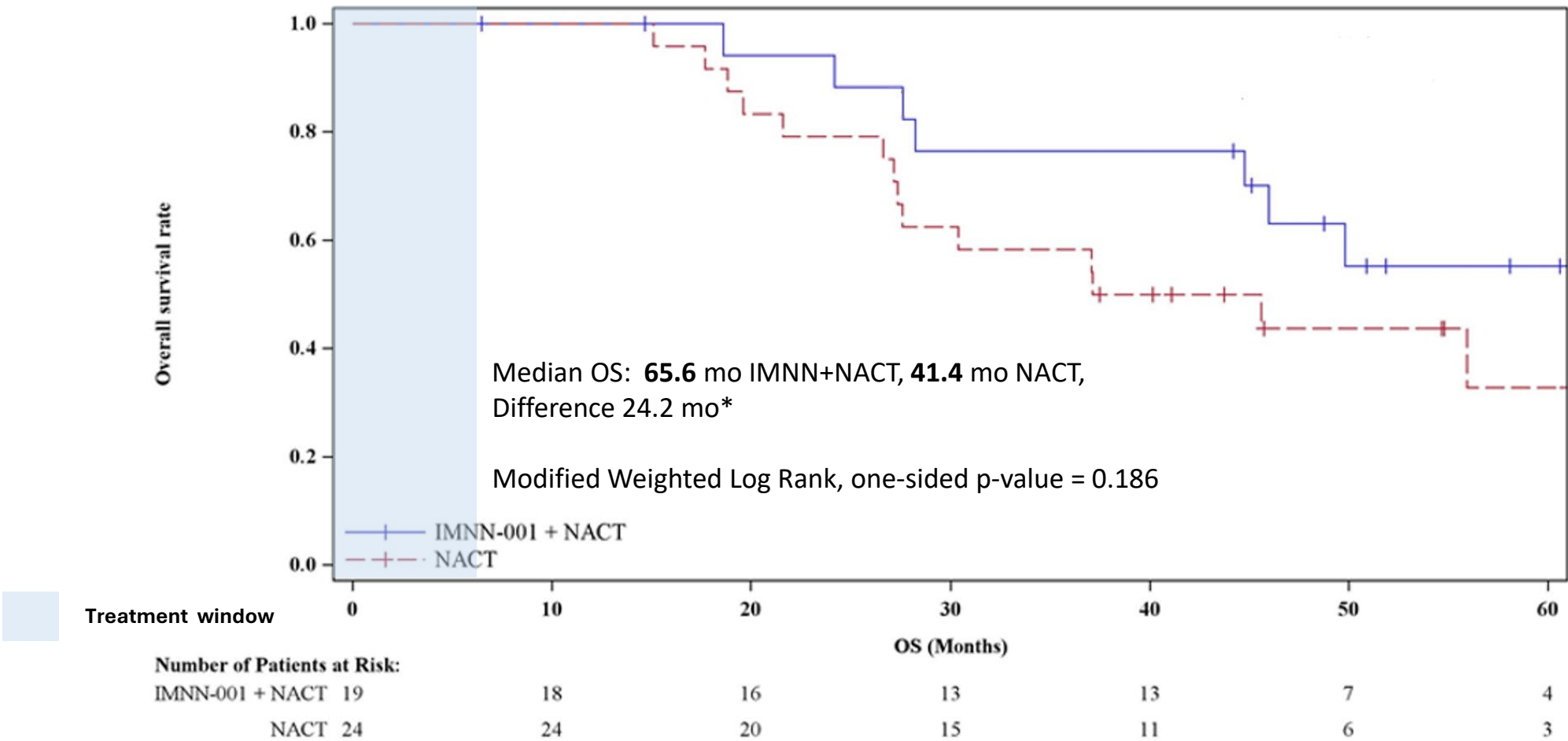
- 01** No other frontline ovarian cancer trial has shown an OS improvement; IMNN-001 has a highly favorable benefit/risk profile
- 02** Large randomized Phase 2 OVATION-2: 14.7-month OS improvement by IMNN-001 over standard of care, 95%CI (-3.8, 33.3), 24-month OS improvement in patients treated with PARPi
- 03** IMNN-001 may be the 1st immuno-therapy for ovarian cancer, with the potential to transform the standard of care and deliver substantial return on investment
- 04** Phase 3 OVATION-3 Study: FDA-aligned registrational trial enrolling, treatment with IMUNON-manufactured API

OVATION 2 Data Show Continued IMNN-001 Overall Survival Improvement



ITT, all-comers: July 2024 Δ medians 11.1 mo → Final Analysis (Dec 2025): **Δ medians 14.7 mo**

OVATION 2 PARPi-Treated Show 24-month IMNN-001 Overall Survival Improvement



PARPi maintenance treated: July 2024 Δ medians NE → *Final Analysis (Dec 2025): Δ medians 24.2 mo

Our Phase 3 Clinical Research is of Great Importance to the Medical Community

Our Landmark Phase 2 Study was Showcased at ASCO with a Platform Presentation

2025 ASCO[®]
ANNUAL MEETING

A Phase I/II study of the Safety and Efficacy of IP IMNN-001 in combination with N/ACT in patients newly-diagnosed with advanced EOC: Updated Survival Analysis from OVATION-2 Trial

P. Thaker, D. Richardson, A. Hagemann, R. Holloway, M. Reed, M. Bergman, B. Pothuri, S. DePasquale, J. Scalici, A. Begar, C. Darus, K. Finkelstein, C. Leath III, M. Bell, D. Warshal, R. Agajanian, M. Indermaur, A. Mendivil, D. Provencher, LJ Wei, L. Musso, S. Lindborg, D. Faller, K. Anwer, W. Bradley.

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— Published in Gynecologic Oncology, Premier Medical Outlet

Multiple Findings Support Further Evaluation of the OVATION-2 Signal

Consistent treatment effects favoring IMNN-001 across Phase 2 efficacy endpoints, favorable safety, and biomarker validation suggest potential for reproducibility

Randomized Trial Design

Randomized 1:1 comparison against the current chemotherapy SoC reduces confounding and strengthens confidence that the observed signal reflects IMNN-001 treatment effect

Treatment effect consistently favored

IMNN-001 + N/ACT effect was consistently favored across all primary and secondary efficacy endpoints in comparison to N/ACT alone

IMNN-001 overcomes safety challenges

IMNN-001 has demonstrated a consistent safety profile across multiple studies with no cytokine release syndrome, no dose limiting toxicities, and no elevated risk in immune related adverse events

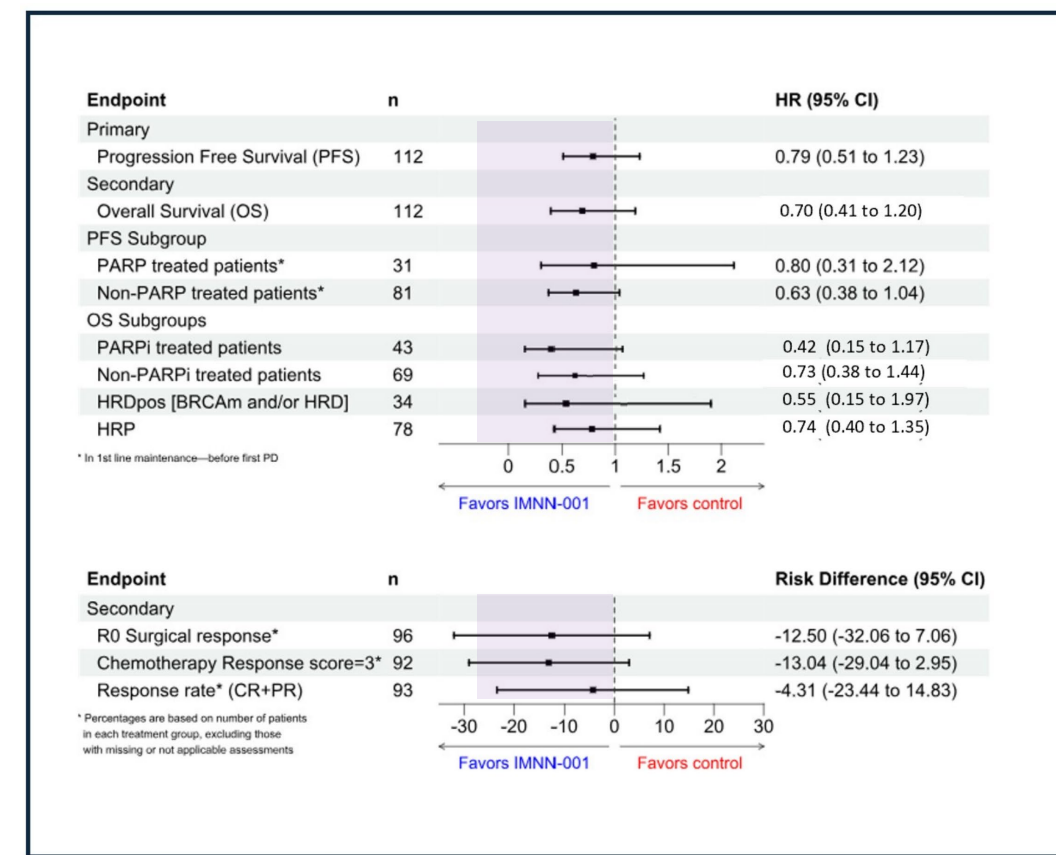
Biomarker Validation

Local IL-12 and IFN- γ production, together with tumor-specific immune activation, provides evidence of biological activity and validates IMNN-001's proposed mechanism

Preliminary MRD Trial results

Preliminary MRD findings from independent randomized study are directionally consistent with OVATION-2, with lower MRD positive rates and increased ctDNA clearance

TREATMENT EFFECT CONSISTENTLY FAVORS IMNN-001 ACROSS ENDPOINTS



THE MECHANISM

IMNN-001 Safely Targets the Micro-Environment of Ovarian Cancer

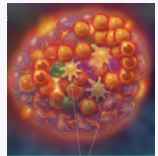
Local production of safe and durable levels of a powerful anti-cancer immune agent, IL-12

Safe administration weekly, demonstrated over a 6-month period

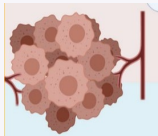
INTERLEUKIN 12 INDUCES STRONG ANTI-CANCER IMMUNITY THROUGH MULTIPLE MECHANISMS



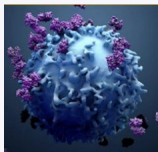
Stimulates the proliferation of CD-8 positive T-cells and natural killer (NK) cells and their cytotoxic activity against the tumor



Shifts the differentiation of naive CD-4 positive T-cells toward a TH-1 phenotype, further enhancing the immune response



Promotes cellular production of the potent immune mediator IFN- γ and TNF- α . IFN- γ promotes the expression of anti-angiogenic molecules, halting the growth of new blood vessels that supply oxygen to the tumor



IL-12 may inhibit regulatory T-cells that suppress immune responses by “hiding” the tumor from the body’s immune system

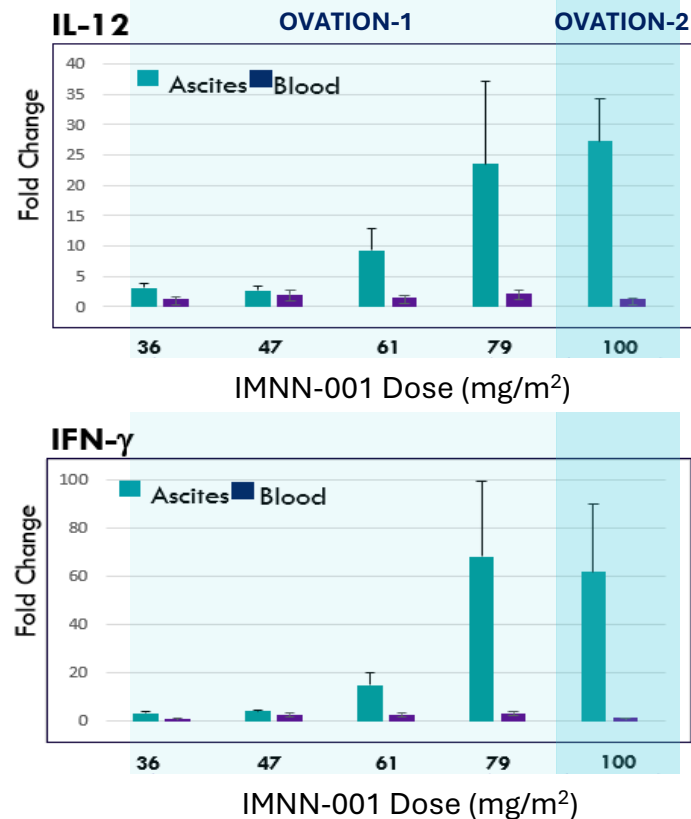
IMNN-001 transforms the Tumor Microenvironment **by activating both arms** of the Immune system: Innate and Adaptive Immunity

IMNN-001 turns “cold” tumors into immunologically active “hot” tumors

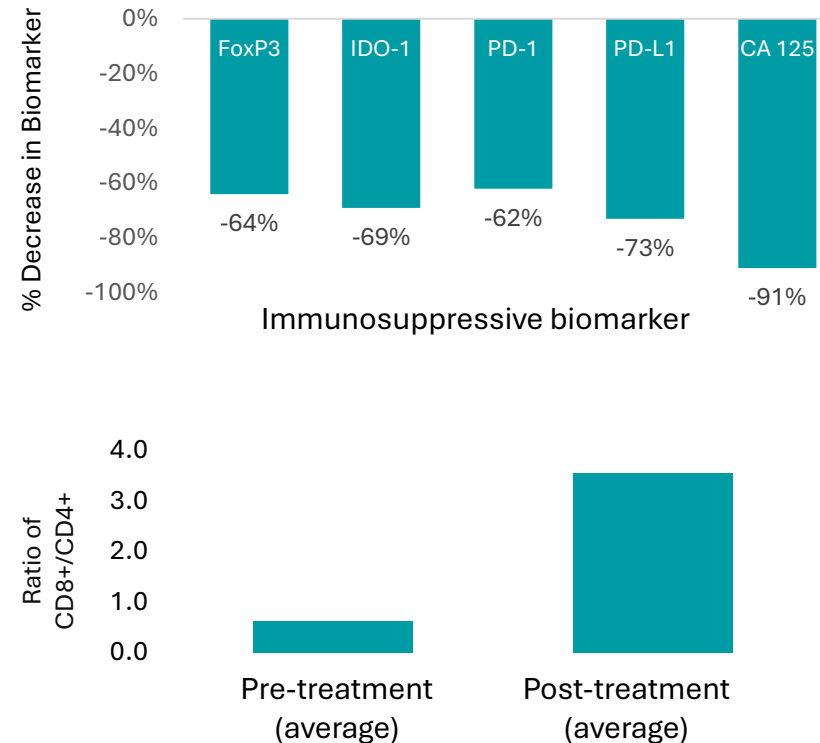
Biomarker Data Support Local Target Engagement and TME Remodeling

IMNN-001 increases IL-12 levels within the ascites without increasing systemic levels, helping shift the tumor microenvironment from immunologically “cold” to “hot”

IMNN-001 achieves local increase in IL-12 in dose dependent manner, without elevating levels in the blood



LOCAL IL-12 EXPRESSION LEADS TO TUMOR SPECIFIC IMMUNE ACTIVATION



IMNN-001 treatment resulted in **reduced immunosuppressive biomarkers in the tumor**, suggesting remodeling of the TME to a more immunologically active state

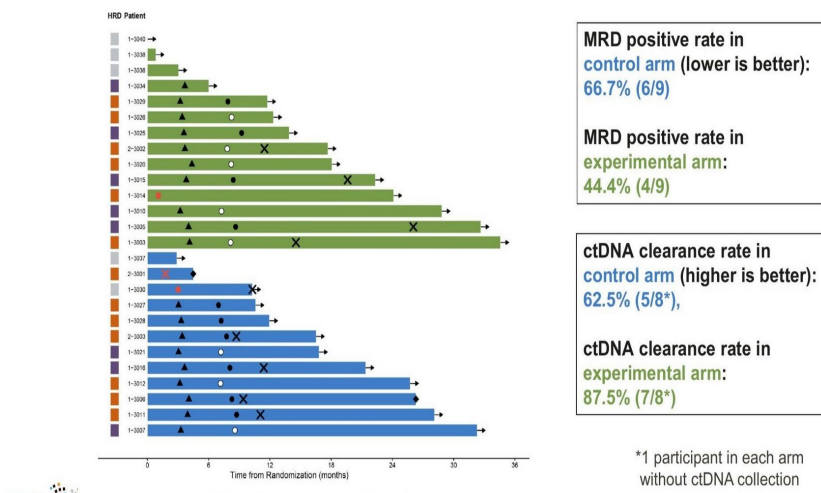
IMNN-001 leads to greater cytotoxic T-cell presence in the TME, indicating that **IMNN-001 is turning the TME from “cold” to “hot”**

Adapted from Thaker P, Clin Cancer Res, 27:553, 2021

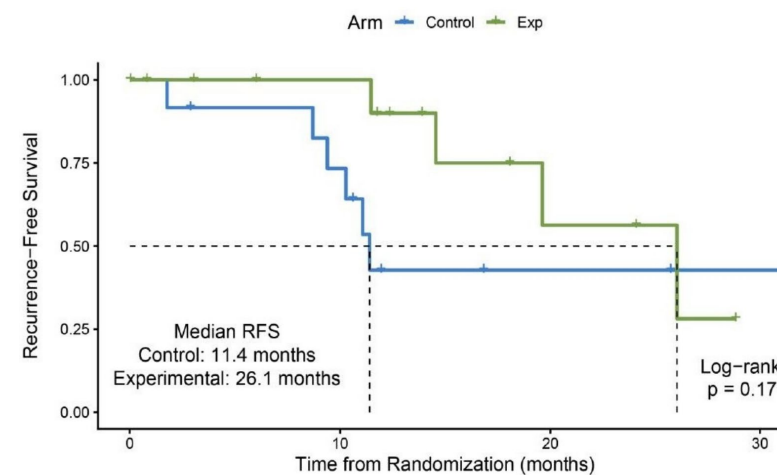
MRD Translational Study: Deep Responses and Immune Remodeling in the IMNN-001 Arm

IMNN-001 Shows Lower MRD-Positive Rate, Higher ctDNA Clearance, and Longer Recurrence-Free Survival

TREATMENT COURSE & OUTCOME BY PATIENT (ITT COHORT)



RECURRENCE-FREE SURVIVAL: MEDIAN TWICE AS LONG WITH IMNN-001



44.4%

MRD-positive rate, experimental arm
(vs. 66.7% control)

87.5%

ctDNA clearance rate, experimental
arm (vs. 62.5% control)

26.1 months

Median recurrence-free survival,
experimental (vs. 11.4 mo control)

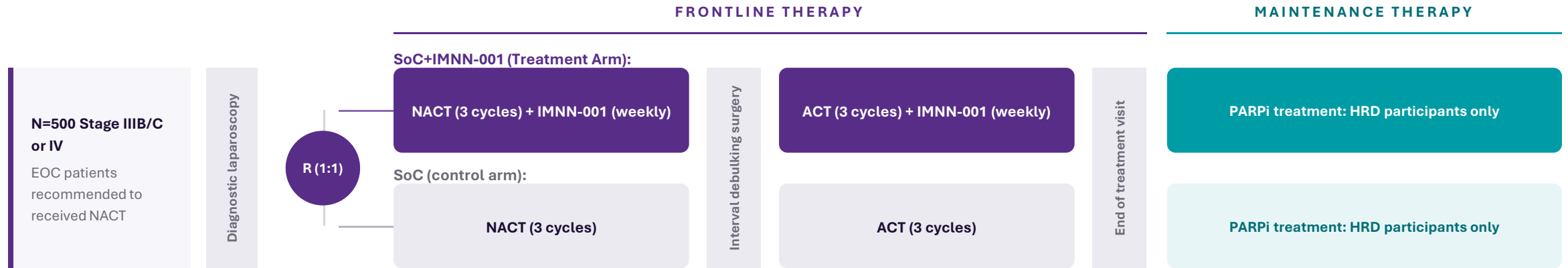
100%

Reached NED after frontline therapy,
experimental (vs. 56%)

N=26 ITT (12 control, 14 experimental); RFS log-rank $p=0.17$. Source: IMUNON 2026 R&D Day, September 23, 2026 (slides 23–26).

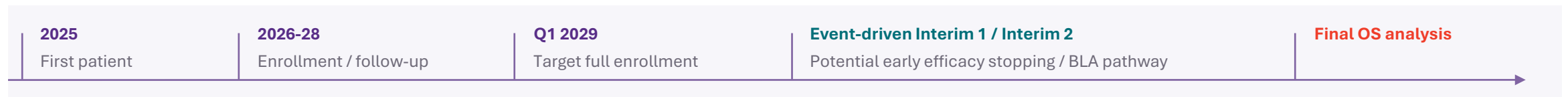
OVATION-3 Is Designed to Prospectively Confirm the OS Effect

OVATION-3 is an ongoing randomized, controlled Phase 3 trial evaluating IMNN-001 in women with newly diagnosed advanced ovarian cancer eligible for neoadjuvant chemotherapy



- **Registrational design:** 500 patients randomized 1:1 to IMNN-001 + N/ACT versus N/ACT alone
- **Primary endpoint:** OS, with protocol-specified maintenance and stratification incorporated to support balanced treatment arms and robust interpretation
- **Regulatory alignment:** Phase 3 protocol, statistical analysis, and cGMP for Phase 3 and commercial product has been aligned with FDA
- **Execution:** Enrollment on tracking with original planning rate, with full enrollment targeted for early 2029
- **Planned interim analyses:** The event-driven design includes interim analyses with potential early stopping for efficacy and support for a future BLA submission
- **Secondary and exploratory endpoints:** that further evidence efficacy, safety and patient perspectives/QoL

TARGETED TIMELINE:



ACT: adjuvant chemotherapy, R: randomization

COMBINATION STRATEGY

IMNN-001's Potential for Combinatorial Strategies

IMNN-001 is evaluated in combination with established ovarian cancer therapies, and its ability to create an immunostimulatory TME provides rationale for combinations with emerging modalities

COMBINATIONS IN CLINICAL EVALUATION

	PARPi Maintenance	OVATION-2 PARP-treated patients showed a larger numerical OS improvement with IMNN-001 of 24 months compared to 14 months in the ITT, suggesting a potential synergy between PARPi treatment and IMNN-001
	VEGF Inhibition	IMNN-001 is currently being evaluated with bevacizumab in randomized MRD study, with potential synergy from bevacizumab reducing VEGF levels, while IMNN-001 may further inhibit VEGF production

FUTURE COMBINATION OPPORTUNITIES

	Immune Checkpoint Inhibitors	IMNN-001 may address the immunosuppressive TME that has previously limited ICI efficacy in ovarian cancer, as clinical data has shown that IMNN-001 increases CD8+ T-cell infiltration and reduces immunosuppressive cell populations
	ADCs	Combination with ADCs may extend the benefit observed in OVATION-2 with IMNN-001 plus standard chemotherapy by combining targeted tumor-cell killing with IMNN-001-mediated immune activation
NCI/CTEP CRADA (September 2026)		Under a Cooperative Research and Development Agreement with the National Cancer Institute's Cancer Therapy Evaluation Program, NCI investigators will evaluate IMNN-001 in new solid tumor indications and combination regimens under the NCI Experimental Therapeutics (NExT) Program.

IMUNON in Phase 3, Well Positioned with Early Stopping Potential

Executing against the plan as promised...

Robust Data from 112 patient OVATION-2 (Phase 2) demonstrating IMNN-001 improvement over SoC

- Confidence in Phase 3 trial based on consistency of clinical data across all endpoints and subgroups
- Final Data validated continued OS benefit

Innovative statistical design with planned interim analysis for early stopping for success and BLA filing to support FDA approval:

- Enhancements added to Phase 3: OS is the primary endpoint, stratification and population balance for interpretability, QoL scales added for pricing and reimbursement
- Broad indication of women newly diagnosed with ovarian cancer who are eligible for neoadjuvant chemotherapy (N/ACT)

Successful meetings with FDA and full alignment

- Protocol, statistical analysis plan, cGMP plan for Phase 3 and commercial product

Imunon team is well-positioned to execute on Phase 3 clinical trial

- Great collective depth and breadth; strong track record of delivery while managing expenses and ability to fund the program to drive the business forward

OVATION-3 (Phase 3) clinical trial ongoing, FPV July 2025

- Site activation in progress, patient enrollment remains on track to deliver the timeline.
- Enrollment pace of 0.5 patients/site/month vs. 0.3 industry benchmark and 0.2 observed in OVATION-2
- Protocol submission to site activation in approximately 6 months; protocol approval to first patient randomized in approximately 2 months, roughly 1/3 of the external industry benchmark
- Full enrollment targeted for Q1 2029
- FDA aligned, pre-specified interim analyses enables earlier approval
- Final Study readout, Q2 2031

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