

INTERIM RESULTS AS OF SEPTEMBER 30, 2015

Q3

FORWARD-LOOKING STATEMENTS

This presentation includes forward-looking statements that involve risks, uncertainties and other factors, many of which are outside of our control that could cause actual results to differ materially from the results discussed in the forward-looking statements. Forward-looking statements include statements regarding our short-term objectives and opportunities, financial expectations for the full year and financial preparedness as of year end, as well as statements concerning our plans, objectives, goals, future events, performance and/or other information that is not historical information. All such forward-looking statements are expressly qualified by these cautionary statements and any other cautionary statements which may accompany the forward-looking statements. We undertake no obligation to publicly update or revise forward-looking statements to reflect subsequent events or circumstances after the date made, except as required by law.

Q3 HIGHLIGHTS

New contracts solidify long-term partnerships

- USD 133 million IMVAMUNE contract with USG/**BARDA** bridging to freeze-dried formulation
- USD 33 million subcontract with USG/**BARDA** for Ebola vaccine program
- USD 15 million in additional funding from USG/**NIH** for BN's own Filovirus program
- New IMVAMUNE order from **Canada** valued at USD 6.4 million; more expected in 2016

Strong pipeline progress

- **Ebola** vaccine Phase 3 study initiated in Sierra Leone; additional studies in planning
- **RSV** vaccine in clinical development; phase 1 completed enrolment
- New **PROSTVAC** study in early stage disease; additional studies to commence

FINANCIALS

- Q3 results in line with expectations
- Revenues in first nine months totaling DKK 703 million
 - DKK 519 million; Deliveries of MVA-BN Filo to Janssen
 - DKK 78 million; Sale of IMVAMUNE to USA and rest of world
 - DKK 107 million; Ongoing R&D contracts
- FY revenue and results expectations maintained

	DKK million			USD million		
	9m 2015	9m 2014	FY2015E	9m 2015	9m 2014	FY2015E
Revenue	703	676	1,000*	106	102	150
EBIT	2	(121)	0*	0	(18)	0
Cash preparedness	1,618	356	1,450**	243	53	218

* Main assumptions: Bulk vaccine equivalent to 2 million doses of MVA-BN Filo delivered and revenue recognized. 0.3 million doses of IMVAMUNE to the U.S. and Canada. Total R&D costs of DKK 600 million, which include approximately DKK 100 million in contract expenses (stated under production costs in the P&L statement) as well as DKK 25 million capitalized in the balance sheet

** Includes loan facility of €50 million obtained from European Investment Bank in May 2015

USD/DKK = 6.66 (as of September 30, 2015)

FINANCIAL STATEMENTS

DKK million	9m 2015	9m 2014	FY 2014
Revenue	703	676	1,217
Production costs	246	328	495
Gross profit	457	347	722
Research and development costs	297	313	479
Distribution and administrative costs	158	155	226
Total operating costs	455	469	705
Income before interest and taxes (EBIT)	2	(121)	17
Financial income/loss	58	37	48
Income before company tax	60	(85)	64
Tax	3	(13)	38
Net profit for the period	57	(72)	26
Cash preparedness (end of period)	1,618	356	1,000

STRONG FOUNDATION FOR FURTHER DEVELOPMENT

PROSTVAC

prostate cancer

- Partnership with Bristol-Myers Squibb
- Phase 3 fully enrolled
- Three interim analyses before final read out
- Clinical studies being advanced in earlier stages and in combination regimens

IMVAMUNE

smallpox vaccine

- Approved in EU & Canada
- 28 million doses delivered to US
- USD 133M bulk vaccine order bridging to next-generation freeze-dried vaccine
- Recurrent orders from Canada

Ebola

vaccine

- Partnership with Janssen
- 2 million doses produced
- Accelerated clinical development plan
- Multiple ongoing Phase 1, 2 and 3 studies in Europe, U.S. and Africa
- U.S. government funding obtained

Pipeline

projects

- Clinical development of **RSV** vaccine started
- Advancing development of **CV-301** for multiple cancers in 2016
- Next generation **Ebola vaccine** supported by U.S. Government

EBOLA PRIME-BOOST VACCINE TIMELINE

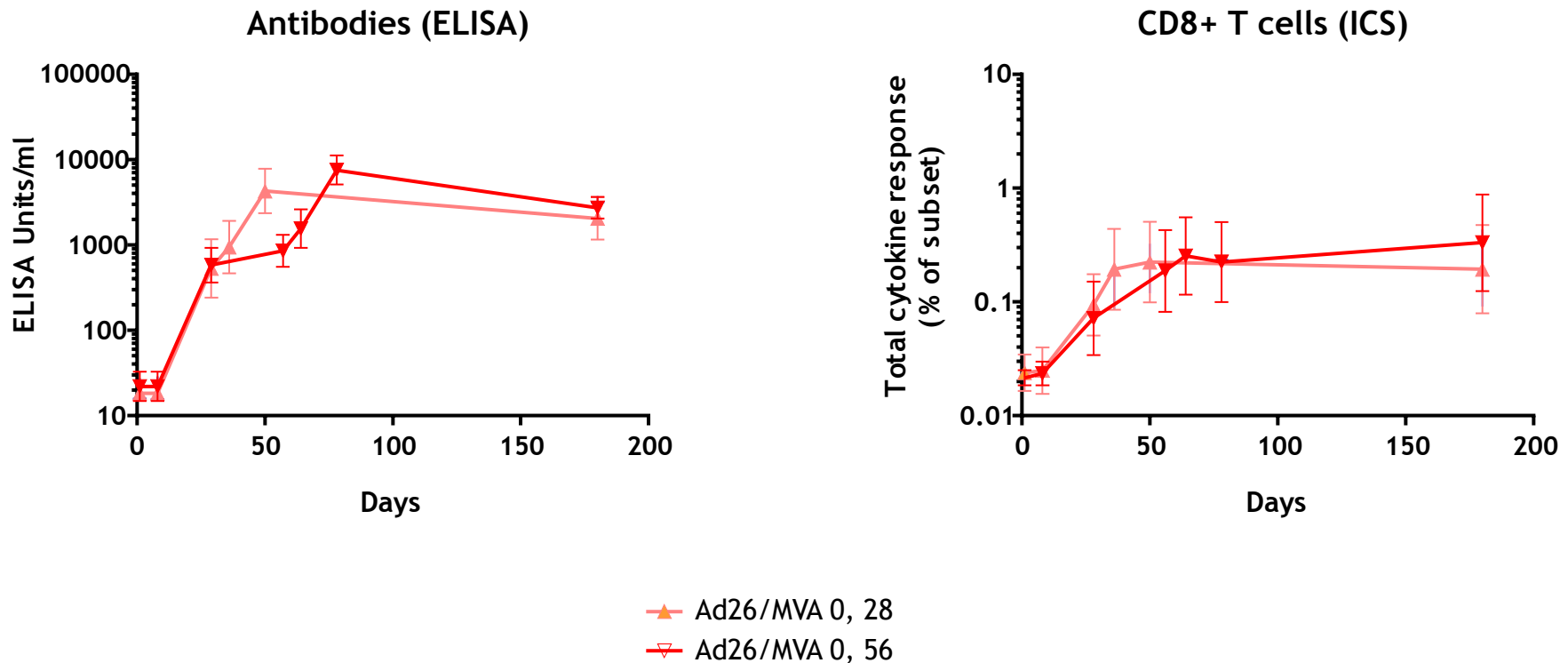
Significant milestones reached within just one year



Oct-2014	License & supply agreement with Janssen
Jan-2015	First-in-human Phase 1 clinical trial in Europe & US Subsequent Phase 1 trials in Africa
May-2015	Preliminary Phase 1 results presented to the FDA
Jul-2015	Phase 2 initiated in Europe
Sep-2015	Additional contract from Janssen (USD 33 million subcontract from USG/BARDA)
Oct-2015	Phase 3 study initiated in Sierra Leone (n=440) Multi-center Phase 2 in vulnerable populations (n=1,200) starting in Nov-15 BN has produced vaccine equivalent to 2 million doses



LONG-TERM DURABLE IMMUNE RESPONSE INDUCED BY HETEROLOGOUS PRIME BOOST EBOLA VACCINE



Robust antibody and T cell responses at 6 months

IMVAMUNE

NEW CONTRACT SIGNALS THE BEGINNING OF FREEZE-DRIED ORDERS

Recent events continue to drive confidence

- Phase 2 complete
- Manufacturing activities ongoing to support an EUA
- RFP expected to be issued by USG
- USD 133 million bulk order from BARDA (July 2015)
 - Initial order allows for immediate transition to FD once RFP occurs and FD pricing can be established

Potential

- First wave of replenishment could replace 20 million expiring doses in stockpile
- Long term stated goal of US Government calls for non-replicating vaccine for 66 million US citizens (~132 million doses)



IMVAMUNE SALES TO CANADA

Recurrent orders solidifies commitment to building and expand smallpox preparedness

- IMVAMUNE approved in Canada in 2013 for emergency use in individuals who are contraindicated to replicating smallpox vaccines



Doses delivered

Year	DND	PHAC
2008	20,000	
2012	20,000	
2014	20,000	46,000
2015		143,000
Total	60,000	189,000
Remaining options	140,000	171,000

PHAC: Public Health Agency of Canada

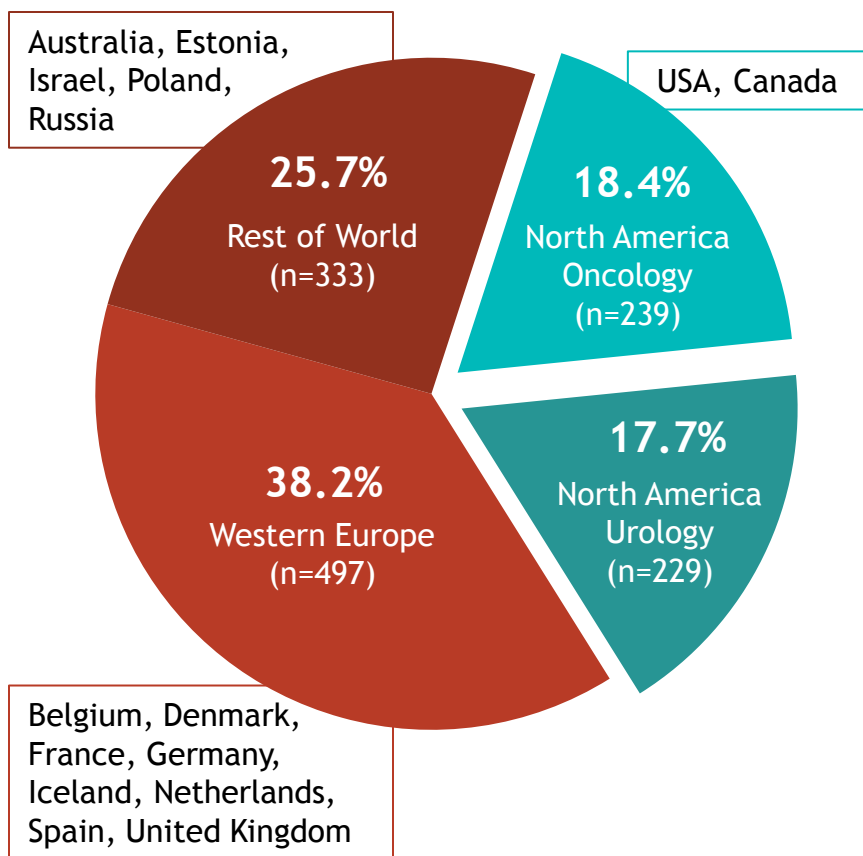
DND: (Canadian) Department of National Defence

PROSTVAC PHASE 3 STUDY

PRELIMINARY PATIENT CHARACTERISTICS

Randomization by region

N=1,298



Injections

- Average was **6.1 injections**¹
- Randomized Phase 2 trial (n=122) had average of 5.4 injections²
- An increased number of injections is expected to improve the clinical outcome for patients receiving the active drug.

1) Subjects who have completed study treatment phase or have completed 7th dosing visit. N=1,279

2) Kantoff et al., Journal of Clinical Oncology, January 2010

PROSTVAC PHASE 3 STUDY

LESS ADVANCED DISEASE COMPARED TO PHASE 2

Phase 3 study selects patients with less advanced mCRPC compared to phase 2

Phase 2 (n=125)	Phase 3 (n=1,298)
Gleason score < 7 (from original biopsy)	Removed Gleason score exclusion Gleason grade not associated with treatment effect in other phase 3 mCRPC trials (sip-T, ipi)
No alkaline phosphatase exclusion	Changed to exclude pts with alk phos > 2 times ULN Excludes more advanced metastatic disease
No LDH exclusion	Changed to exclude pts with LDH \geq 2 times ULN Excludes more advanced metastatic disease
No PSA doubling time (PSA-DT) exclusion	Added exclusion for pts with PSA-DT < 1 month Excludes patients with fast growing tumors
Minimum PSA value for determination of CRPC = 5 ng/mL (PCWG1)	Minimum PSA value for determination of CRPC lowered to 2 ng/mL (PCWG2)

Common inclusion criteria for both studies:

ECOG < 2; no visceral metastases; asymptomatic (no cancer-related pain requiring narcotics); no prior chemotherapy

PROSTVAC COMBINATION TRIALS

TWO NEW TRIALS PLANNED FOR INITIATION

Further investigation of PROSTVAC in collaboration with BMS

- Two new investigator-sponsored trials planned for initiation

Phase 2 (n=75)

Open label combination trial in localized prostate cancer using PROSTVAC and ipilimumab as neoadjuvant therapy.

Randomization 1:1:1

PROSTVAC

ipilimumab

PROSTVAC + ipi

Sponsor: UCSF
Clinicaltrials.gov
NCT02506114

Phase 2 (n=28)

Open label combination trial in prostate cancer using PROSTVAC, ipilimumab and nivolumab as neoadjuvant therapy

PROSTVAC + ipi + nivo

PROSTVAC + ipi

Sponsor: NCI

CV-301 FOR MULTIPLE CANCERS

CV-301 development strategy

- Combination treatment with checkpoint inhibitor(s)
- Short-term clinical outcomes possible (Overall Response Rate, Progression-Free Survival)
- Partnering opportunity based on proof-of-concept data
- Additional planned and ongoing NCI-sponsored studies

New and improved vaccine construct based on MVA-BN



CV-301 PRODUCT DEVELOPMENT STRATEGY

Leverage Existing Clinical Data

Preliminary evidence of efficacy generated in multiple clinical studies.

Safety data with over 300 subjects treated.

CV-301 in Combination with Immune Checkpoint Inhibitors

NCSLC

BN sponsored

Bladder

Exploring combinations with PD-1/PD-L1 in company collaborations or with NCI

Colorectal

RSV: Respiratory Syncytial Virus

- Major cause of upper & lower respiratory tract infections in adults and children
- No approved vaccine; high unmet medical need
- Recurrent infections are common, particularly in individuals with respiratory & circulatory diseases

Serious health risk for elderly

- 177,000 hospitalizations and 14,000 deaths annually among US adults older than 65 years
- Infection rate in adults ranges between 5-10% per year, 70-80% get respiratory symptoms, 10-20% are hospitalized, and 2-5% die
- High levels of transmission in nursing homes increase disease burden in these facilities
- Major risk factor for adults with chronic pulmonary conditions

Leading cause of infant hospitalization

- Up to 176,000 hospitalizations in the US annually in children under 5
- 1.5 million outpatient visits in the US annually in children under 5
- 90% of infants contract RSV infection by 2 years of age, infants < 6 months of age are most at risk for severe disease
- Children are major source of disease transmission

MVA-BN RSV

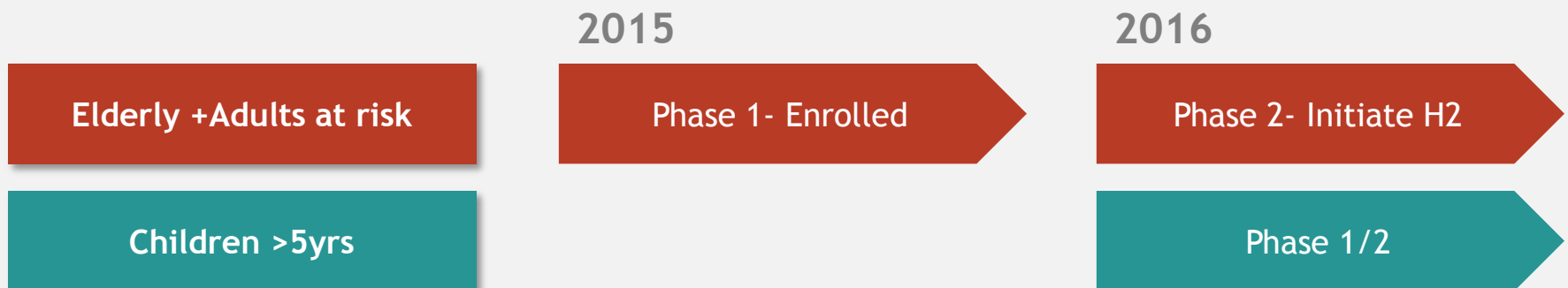
MVA-BN RSV vaccine candidate

- Creates a strong immune response (both antibody and T cell)
 - Targets both the F and G surface proteins
- Protection against both RSV subtypes (A&B) in preclinical models
- Received NIH funding (preclinical efficacy)

Phase 1 study fully enrolled

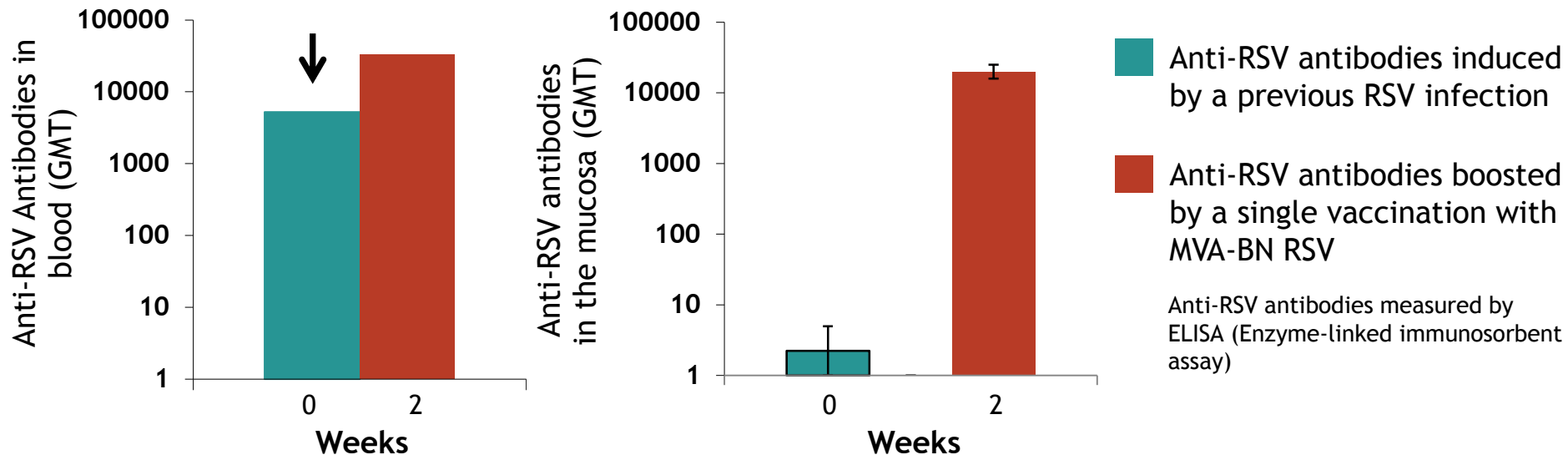
- Randomized, placebo-controlled study
 - 63 patients, ages 18-65; 3 dose cohorts
- Primary endpoint: safety and tolerability; secondary endpoints: immunogenicity
- Initial data anticipated H1 2016

Development strategy



MVA-BN RSV BOOSTS PRE-EXISTING RESPONSES

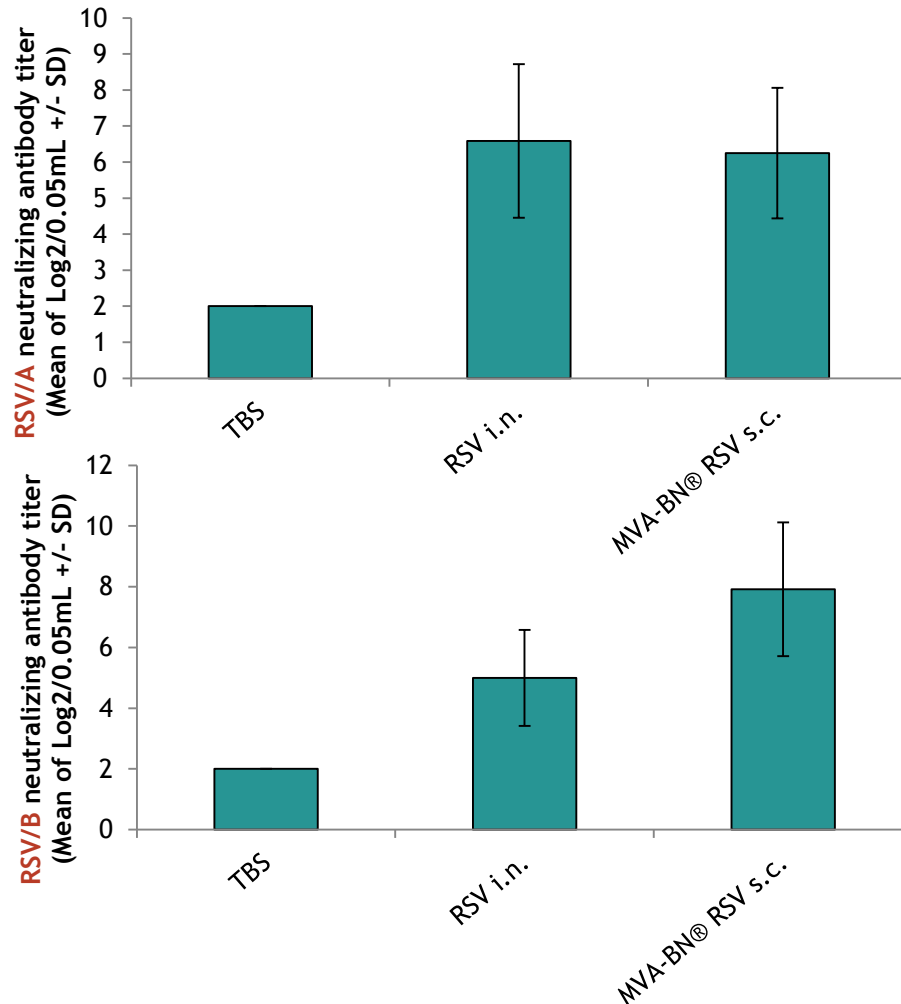
Preclinical data



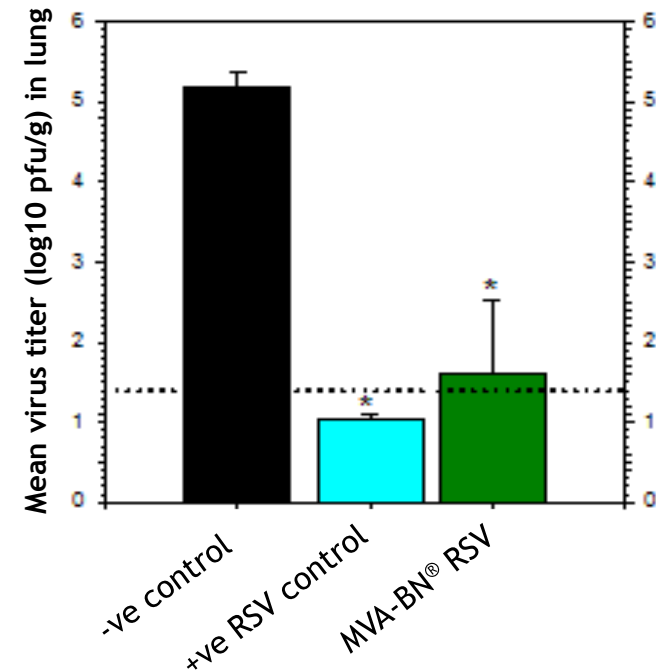
- Animals that had previously been infected (and survived) an RSV infection were vaccinated at week 0.
- Model mimics the situation of adults that have all been exposed to RSV
- Antibodies against RSV were boosted >7-fold & >75-fold in the blood and mucosa (lung) following a single vaccination with MVA-BN RSV

MVA-BN RSV IS IMMUNOGENIC & EFFICACIOUS IN COTTON RATS

Neutralizing Antibodies @ A & B Strain
















RSV Clearance from the lung



- 2nd study confirmed the promising results that MVA-BN RSV was equally immunogenic and efficacious as a natural RSV infection (+ve control).
- A 3rd study is being planned to investigate MVA-BN RSV given i.n. in cotton rats

CLINICAL PIPELINE

PRODUCT CANDIDATE	INDICATION	COMMERCIAL RIGHTS	PRIMER / BOOSTER	PHASE 1	PHASE 2	PHASE 3	APPROVED	STATUS/MILESTONES
Infectious Disease								
IMVAMUNE / IMVANEX (liquid frozen)	Smallpox		MVA-BN MVA-BN	Approved in Canada and EU				• Approved in Canada and the European Union
	Smallpox		MVA-BN MVA-BN	Phase 3 in U.S.				• Complete enrollment expected in 2017
IMVAMUNE (freeze dried)	Smallpox		MVA-BN MVA-BN					• Manufacturing validation
MVA-BN Filo	Ebola / Marburg		AdVac ^(a) MVA-BN					• EU Phase 2 trial initiated in 1Q15; Africa Phase 3 trial initiated in 4Q15
MVA-BN RSV	RSV		MVA-BN MVA-BN					• Phase 1 trial data expected to be reported in 1H16
Cancer Immunotherapy								
PROSTVAC	mCRPC	 ^(b)	Vaccinia Fowlpox	PROSPECT fully enrolled				• 3 interim analyses starting in 2016 with top-line data expected to be reported in 2017
	Localized Prostate Cancer	 ^(b)	Vaccinia Fowlpox					• Enrolling for Phase 2 trial
	Localized Prostate Cancer (neoadjuvant)	 ^(b)	Vaccinia Fowlpox					• Phase 2 trial data expected to be reported in 2016
	mCRPC	 ^(b)	Vaccinia Fowlpox	+ XTANDI (enzalutamide)				• Enrolling for Phase 2 trial
	Non-Metastatic Prostate Cancer	 ^(b)	Vaccinia Fowlpox	+ XTANDI (enzalutamide)				• Phase 2 trial data expected to be reported in 1H16
	Prostate Cancer	 ^(b)	Vaccinia Fowlpox	ipilimumab				• Phase 2 trial planned
CV-301	Bladder Cancer		Vaccinia ^(c) Fowlpox					• Enrolling for Phase 2 NCI trial
MVA-BN Brachyury	Solid Tumors		MVA-BN MVA-BN ^(d)					• Phase 1 trial data expected to be reported in 4Q15

(a) An adenovirus primer from Janssen.

(b) BMS would have complete commercial rights to PROSTVAC, regardless of treatment setting, should they exercise their licensing agreement.

(c) Anticipated transition to MVA primer.

(d) Anticipated transition to Fowlpox booster.

ANTICIPATED SELECTED MILESTONES

NEXT 12-18 MONTHS

PROSTVAC

prostate cancer

- Interim analyses of Phase 3 study
- Initiate Phase 2 study in combination with ipilimumab in collaboration with BMS
- Initiate NCI-sponsored Phase 2 study in combination with ipilimumab and nivolumab
- Data from NCI-sponsored Phase 2 trials
- New NCI-sponsored combination trials

Ebola

vaccine

- Complete Phase 2 and Phase 3 studies of the prime-boost vaccine regimen
- Potential expanded collaboration with Janssen on additional infectious disease targets

IMVAMUNE

smallpox vaccine

- Finalize manufacturing activities to support a U.S. EUA for freeze-dried IMVAMUNE
- Initiate manufacturing and storage of IMVAMUNE bulk for the U.S. Government
- Respond to U.S. RFP for freeze-dried vaccine
- Additional rest of world orders

Pipeline

projects

- MVA-BN RSV Phase 1 data
- MVA-BN RSV Phase 2 initiation
- MVA-BN Brachyury Phase 1 data
- MVA-BN Brachyury Phase 2 initiation
- CV-301 + checkpoint inhibitor Phase 2 in lung cancer
- CV-301 + checkpoint inhibitor Phase 2 in additional indications
- New NCI-sponsored combination trials of CV-301
- Initiate NIH-sponsored Phase 1 trial of multivalent MVA-BN Filo

Q&A

