Business Update

April 16, 2020

Michael Engsig
CEO

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President & CSO

Agenda

1. Introduction
2. Financial update
3. Update on cancer activities
4. Update on infectious disease activities
5. Outlook and Q&A

2019 A strong year emphasizing Vaccibody's potential

February
Clinical collaboration with Roche regarding combination of VB10.16 and immune-checkpoint inhibitor atezolizumab (Tecentriq®)

Private placement, raising around NOK 230 million (EUR 23.6 million)

March
Positive 12-month results from its Phase IIa with VB10.16 in HSIL / CIN2/3

April
Presentation of new pre-clinical data combining VB10.NEO with Nektar Therapeutics bempegaldesleukin (NKTR-214)

June
Strong neoantigen-specific T cell responses induced in the first four VB10.NEO patients

October
Hired Siri Torhaug, MD, as new Chief Medical Officer

November
Initial data from the VB10.NEO trial shows positive clinical responses in patients with local or metastatic cancer

April 2020
Expanding strategic focus to include infectious disease

Vaccibody expands strategic focus into Vaccines for Infectious Diseases.

Large addressable market and significant unmet medical need

Large growing market

- Significant commercial opportunity, with more than $35 billion in annual worldwide sales
- Growing est. 6% p.a. to $55-65 BUSD in 2028
- More than ten products generating >500 MUSD in annual revenue

Unmet need

- More than 80 new viruses discovered since 1980 – in average two per year
  - Only 4% of these have vaccines commercially available in the US

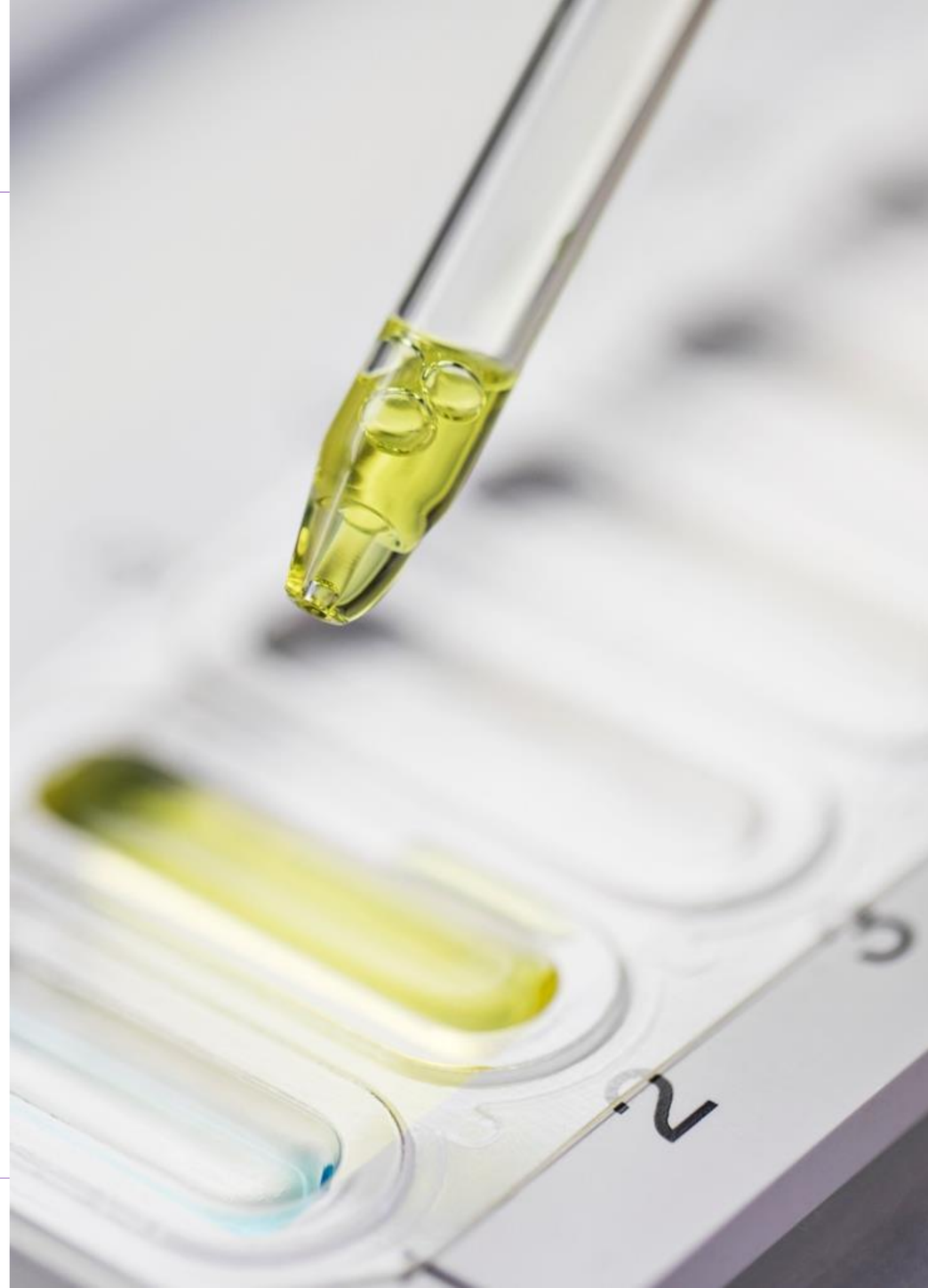
Innovation is a major growth driver

- More than 30% of the market is made up by innovative vaccines
- Relatively high probability of success of 33.4% from Phase1 to Approval

GlobalData, Evaluate Pharma

Leading Vaccine Technology Company

- Building the leading vaccine technology company
- Unique and versatile Vaccibody technology platform to tailor the immune response
- Addressing significant unmet medical need within oncology and infectious diseases
- Partnering with world class players to support the value creation for the Vaccibody’s shareholders.



Vaccibody technology offers unique value proposition

First in class ability to demonstrate antigen specific immune responses eliciting tumor shrinkage.
Proven unique CD8 T-cell responses in cancer setting

Well-tolerated

Rapid, strong, and long-lasting immune responses

Low complexity formulation & manufacturing

Ability to tailor immune responses to specific diseases

Effective vaccine design process

Vaccibody pipeline
Broad oncology coverage and strong partnerships

Program	Description	Discovery	Preclinical	Phase I	Phase II	Phase III	Collaborator
Oncology and precancer							
Personalized							
VB10.NEO Melanoma, lung, bladder, renal, head & neck	An open-label Phase I/IIa basket study to evaluate the safety and efficacy of multiple dosing with VB10.NEO in patients with locally advanced or metastatic cancer. One study arm combines VB10.NEO with bempegaldesleukin (NKTR-214) in head & neck cancer patients.				●		Nektar Therapeutics
Off-the-shelf							
VB10.16 Precancerous cervical lesions	An open-label Phase I/IIa study to evaluate the safety and immunogenicity of VB10.16 in HPV16-positive patients with HSIL (CIN 2/3). The study was completed January 31, 2019, and the final report is available with positive 12-month data.				●		
VB10.16 Cervical	An open-label Phase II study to evaluate the safety and efficacy of multiple dosing with VB10.16 in combination with atezoluzimab (Tecentriq®) in HPV16-positive patients with advanced, non-resectable cervical cancer.				●		Roche
Infectious disease							
Undisclosed	Research is being conducted to leverage Vaccibody's vaccine technology to develop vaccines to prevent or treat infectious diseases.	●					

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Key financial figures 2019

NOK 1,000	2019	2018
Total operating revenue	12,446	12,042
Employee expenses	29,355	20,882
Other operating expenses	81,983	56,997
Total operating expenses	111,338	77,879
Profit (loss) from ordinary operations before tax	-95,956	-63,793
Net proceeds from equity issues	224,322	337
Net cash flow	135,077	-62,525
Cash and cash equivalents at year end	279,625	144,547

- Raised 516 mNOK (45.1 mEUR) since inception
- Diverse and active shareholder base, ~470 shareholders
- Registered at NOTC (marketplace for unlisted shares, fully owned by Oslo Stock Exchange, www.notc.no)

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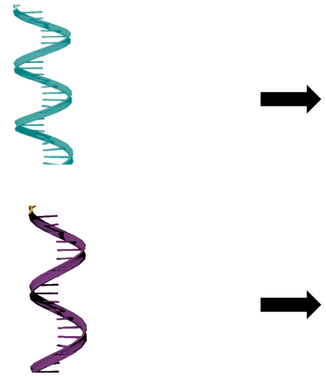
Vaccibody – Proprietary Vaccine Technology Platform

The Vaccibody Technology Platform is developed based on the concept of **targeting antigen to Antigen Presenting Cells (APCs)** in order to create more efficacious vaccines

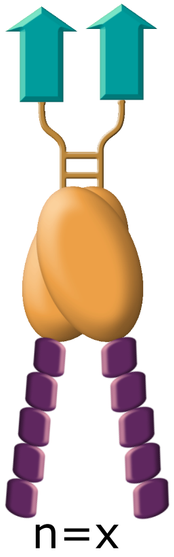


Exchangeable DNA Cassettes

Vaccibody DNA Vaccine Plasmid

VB10.NEO

In vivo expression



Vaccibody in Protein Format

Target to Antigen Presenting Cell

Dimerization for crosslinking target receptor

Antigen moiety

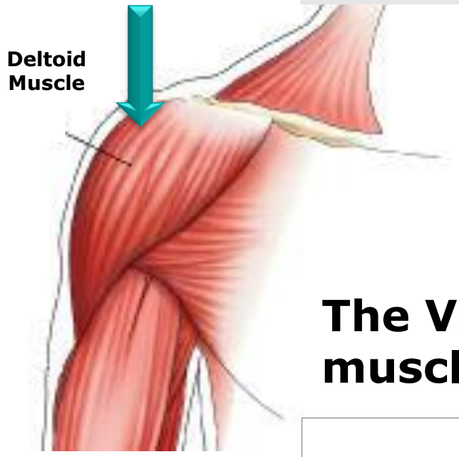
Mechanism of Action:
The Multiple Effects of MIP-1α as Targeting Unit

Administration (i.m.) of DNA plasmid

***In vivo* protein expression and secretion**

Target – Attract – Mature – Deliver – Cross-present

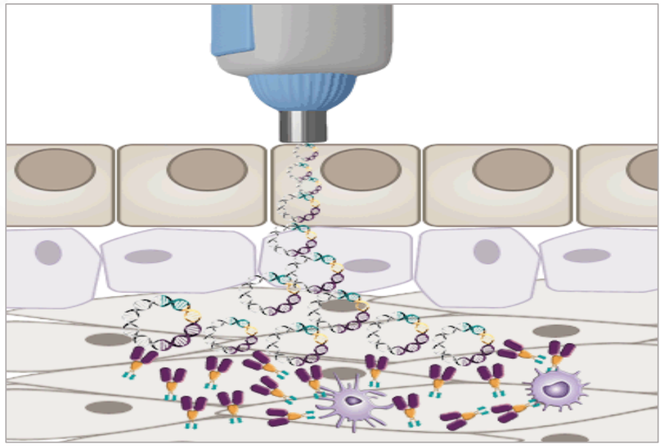
MIP-1α: Skewing the immune system to a CD8+ killer T-Cell response

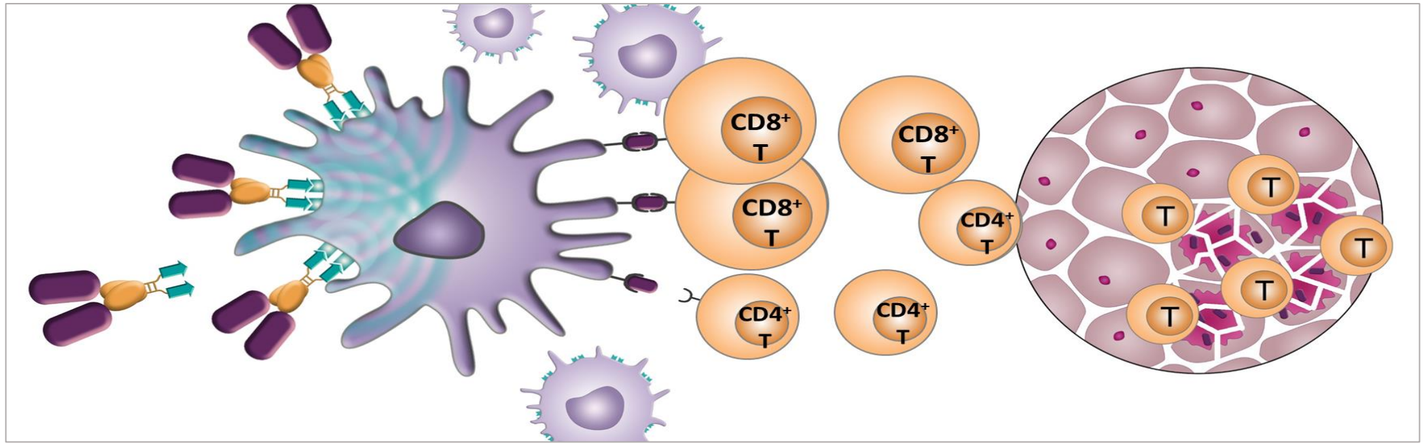


The Vaccibody uses the muscle cell as a factory

- Direct targeting & attraction of antigen presenting cells, high local vaccine concentration
- Enhanced B- and T-cell immunity obtained with fewer and lower doses
- Faster and longer lasting immune responses
- **Stronger potential to kill cancer and viral infected cells**

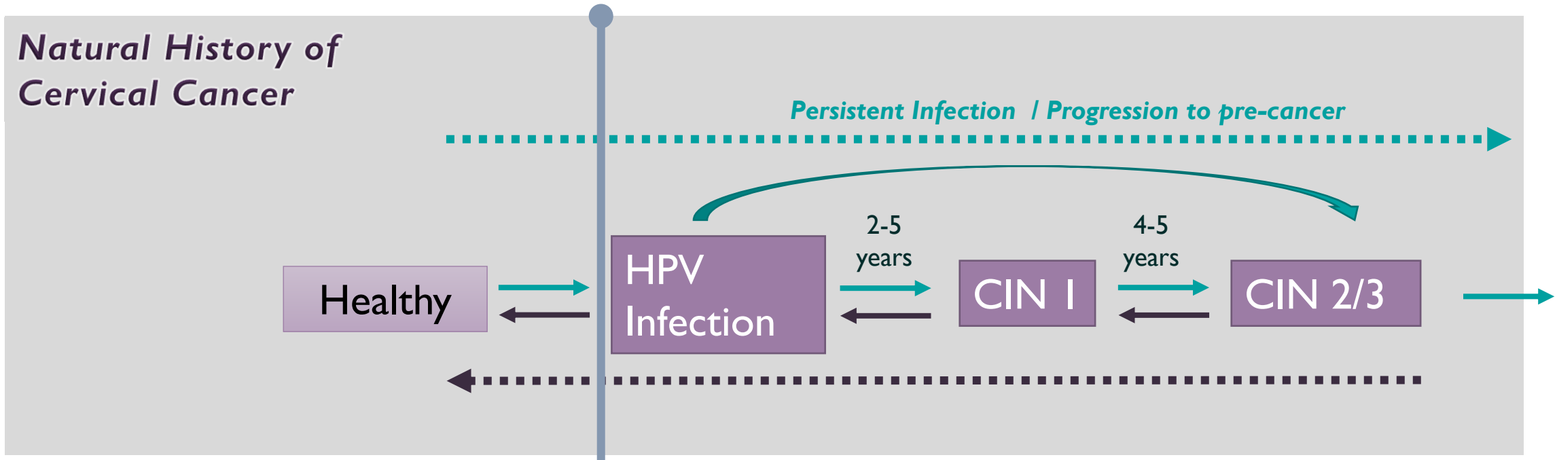
PharmaJet®

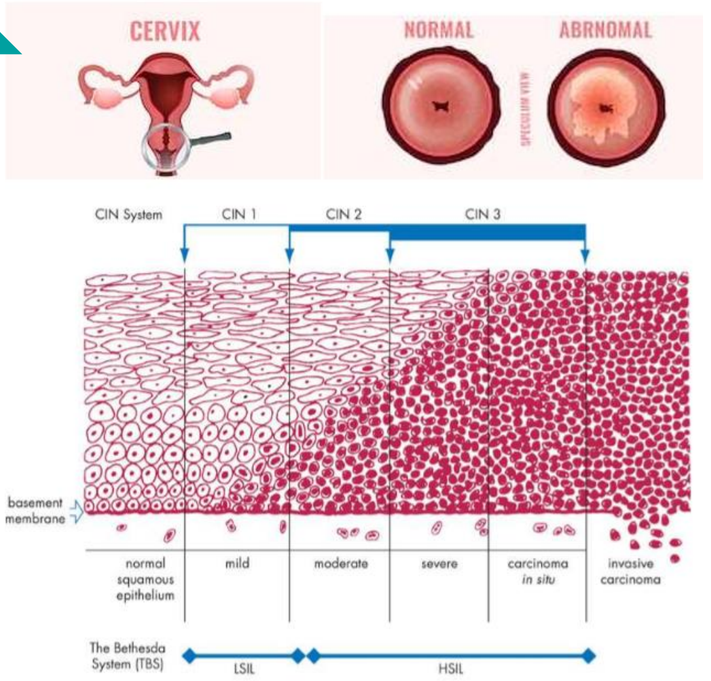




Targeting is elicited by the MIP-1α chemokine

HPV16 is an oncogenic virus causing cancer in genital regions and mucosal areas - ideal target for off-the-shelf cancer vaccine





Barrier for Preventive Vaccines

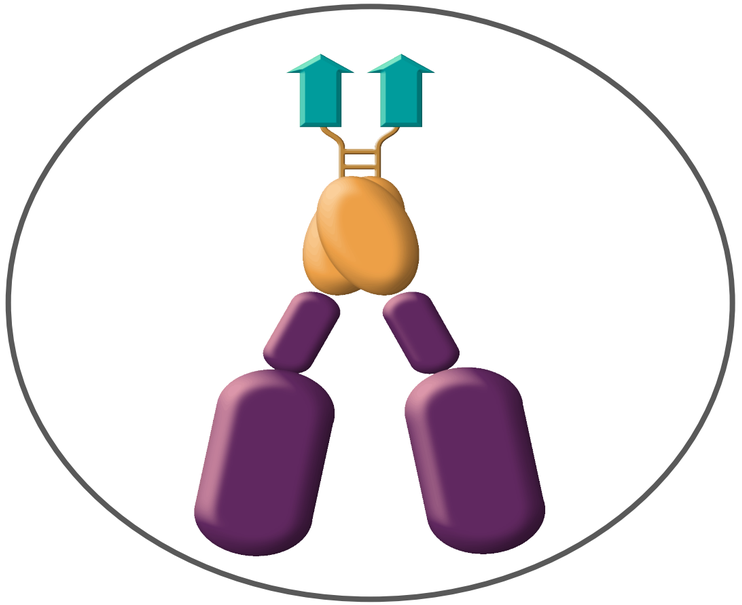
Prophylactic

Therapeutic Vaccine VB10.16

VB10.16 – Therapeutic cancer vaccine for HPV16 related cancer

- Off-the-shelf therapeutic cancer DNA vaccine against HPV16 induced pre-malignancies and malignancies
  - Targets foreign viral cancer-specific antigen
  - HPV-specific T cell responses linked to clearance of pre-cancerous lesions
- Finalized phase 1/2a study with VB10.16 monotherapy in HPV16+ precancerous cervical lesions
  - Strong data and scientific rationale for combination with checkpoint inhibitor and broadening of scope to HPV16+ cancer indications
  - Well tolerated

VB10.16



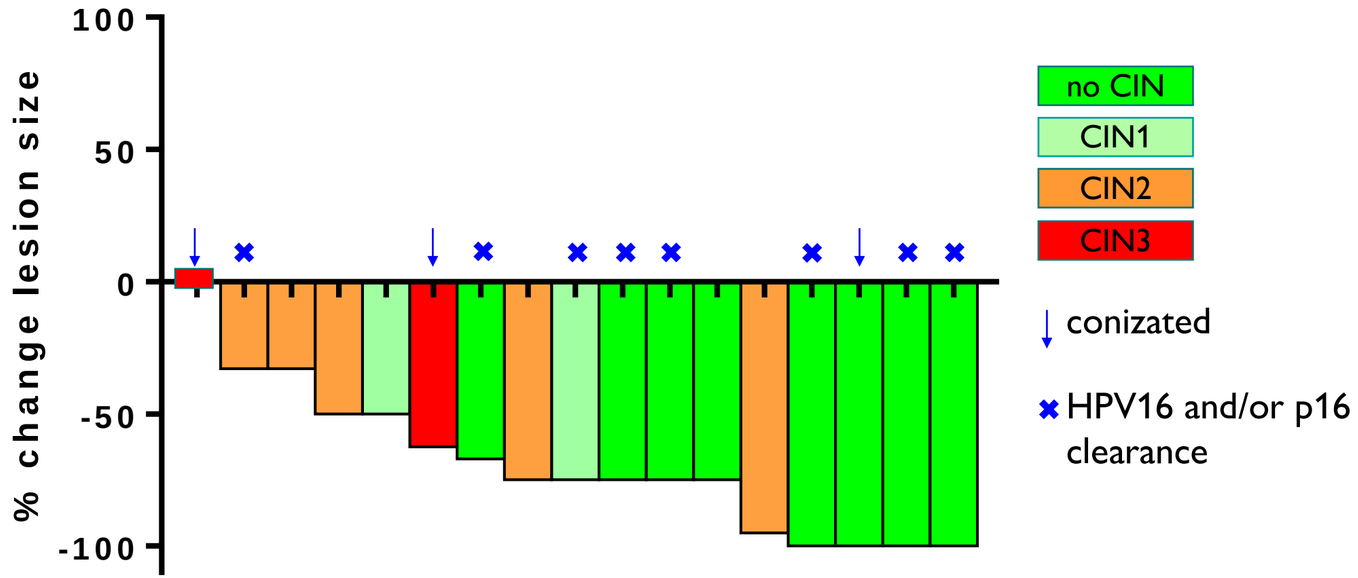
Off the shelf vaccine targeting foreign viral antigens

- Partnership with Roche and ready to initiate Phase 2 study of VB10.16 + Atezolizumab in adv. cervical cancer

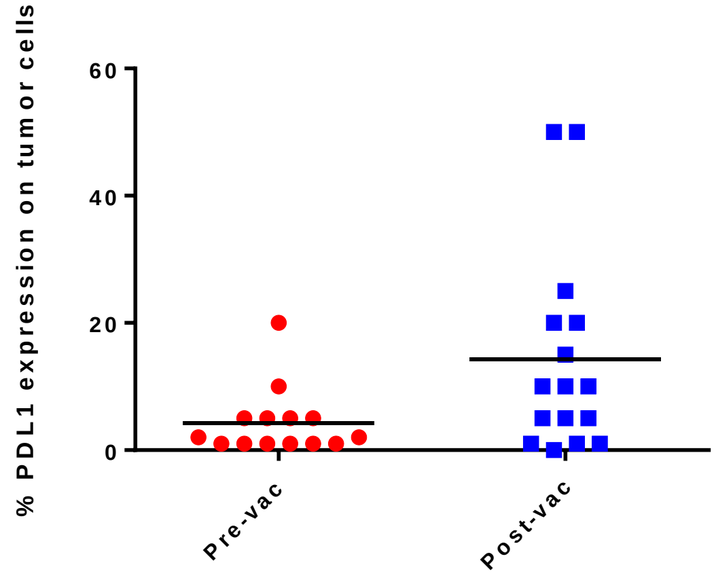
Strong data for VB10.16 as monotherapy in precancerous lesions.

Scientific rationale supporting combination of VB10.16 + checkpoint inhibitor in cancer

Best response data
(At enrollment: 10 CIN3 and 7 CIN2 patients)



Lesion size reduction, CIN regression and HPV16 and/or p16 clearance

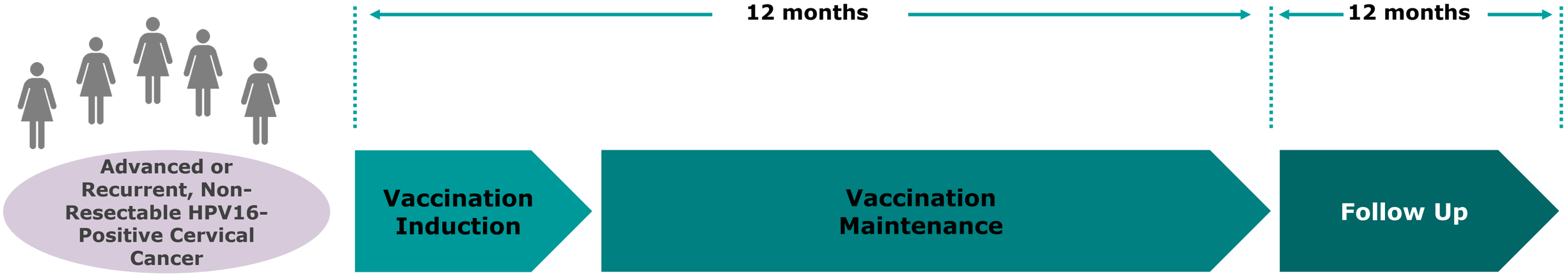


Upregulation of PD-L1 expression in lesions after vaccination

- VB10.16 as a monotherapy in HPV16-positive, precancerous cervical lesions induces strong clinical responses correlating with vaccine-induced immune responses
- VB10.16 induced strong, local T cell response, upregulates PD-L1 and provides a strong scientific rationale for combination therapy with a checkpoint inhibitor.
- Established collaboration with Roche to test the combination of VB10.16 and Atezolizumab in HPV16+ cervical cancer

Status and study design for VB C-02 with VB10.16 + Atezolizumab (Tecentriq®)

- Purpose is to assess the safety/tolerability, immunogenicity and the efficacy of multiple doses of 3 mg VB10.16 immunotherapy in combination with Atezolizumab
- Up to 50 patients with advanced or recurrent, non-resectable HPV16+ cervical cancer are planned to be enrolled
- The study will be conducted in Europe in 6 countries, including Norway

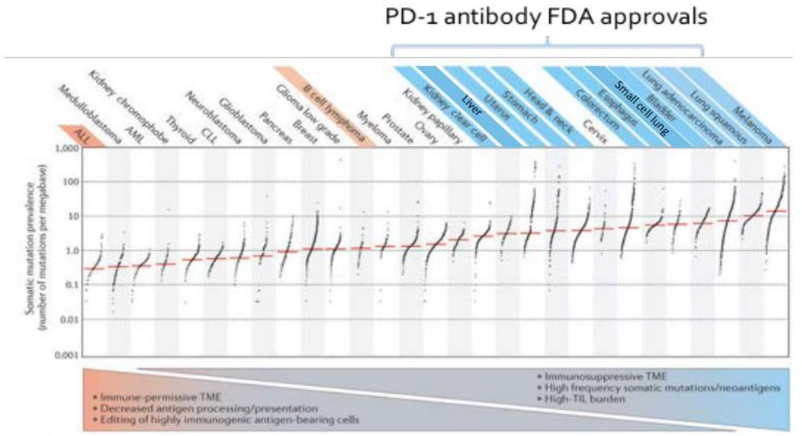


- **Final approvals obtained in most countries and ready to initiate trial**
- **Carefully following the COVID-19 situation to determine start up time**

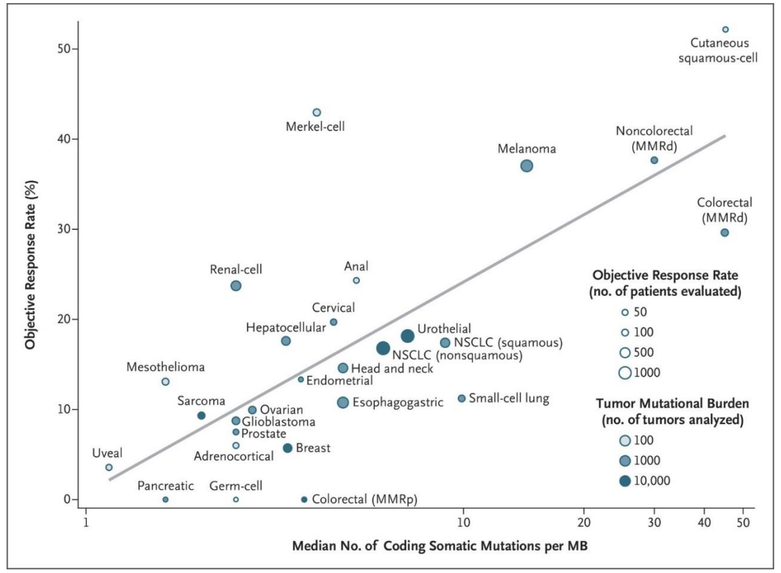
Individualized cancer neoantigen vaccines and its scientific rationale

Fully individualized cancer therapy

- Most cancer related mutations (neoantigens) are individual
- Neoantigens are regarded as foreign and thus highly immunogenic
- Clinical efficacy by CPI is most often caused by activation of neoantigen-specific CD8 T cells
- VB10.NEO targets multiple neoantigens in one vaccine where all have been identified in each patient's tumor cells
- Applicable across multiple indications



Adapted from Alexandrov et al. Nature 2013

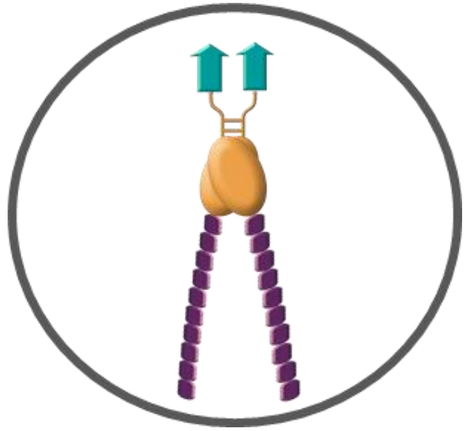


VB10.NEO - a fully personalized cancer vaccine in ongoing basket study

- Individualized therapeutic cancer DNA vaccine against the patient's own cancer specific mutations
  - Targets foreign somatic cancer-specific sequences with verified presence in patient's own tumor
  - Carefully selected neoantigens
    - customized to each patient's HLA molecules
    - Based on Vaccibody's proprietary Neoantigen selection tool NeoSELECT
  - Manufactured on demand using Vaccibody's rapid and robust manufacturing process

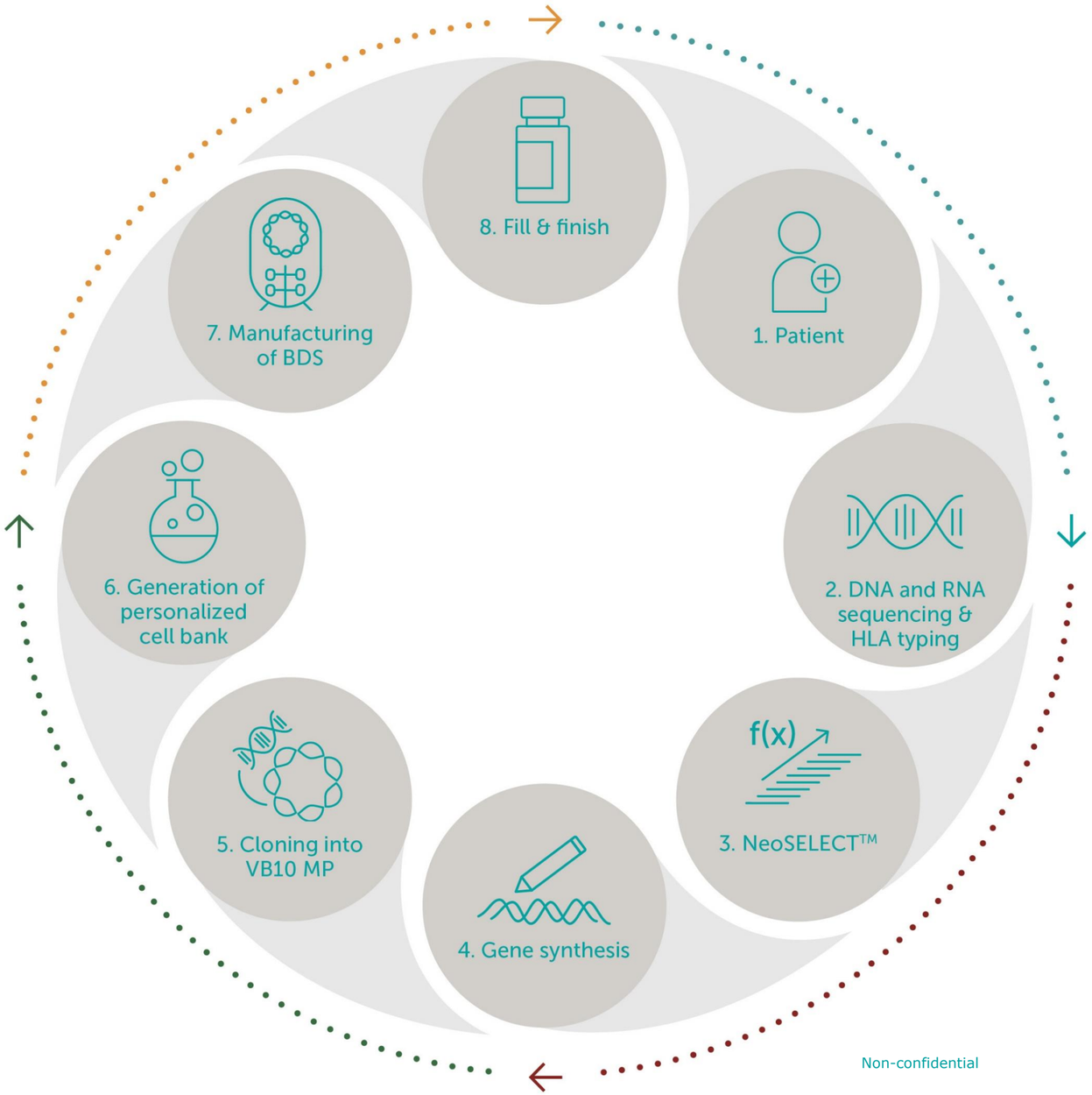
- Ongoing Phase 1/2a basket study in 5 indications
  - Promising interim data released Nov 2019
    - First in class ability to demonstrate antigen specific immune responses eliciting tumor shrinkage.
    - Proven unique CD8 response in cancer setting

VB10.NEO



Fully personalized vaccine against the patient's individual cancer specific mutations

The personalized vaccine flow



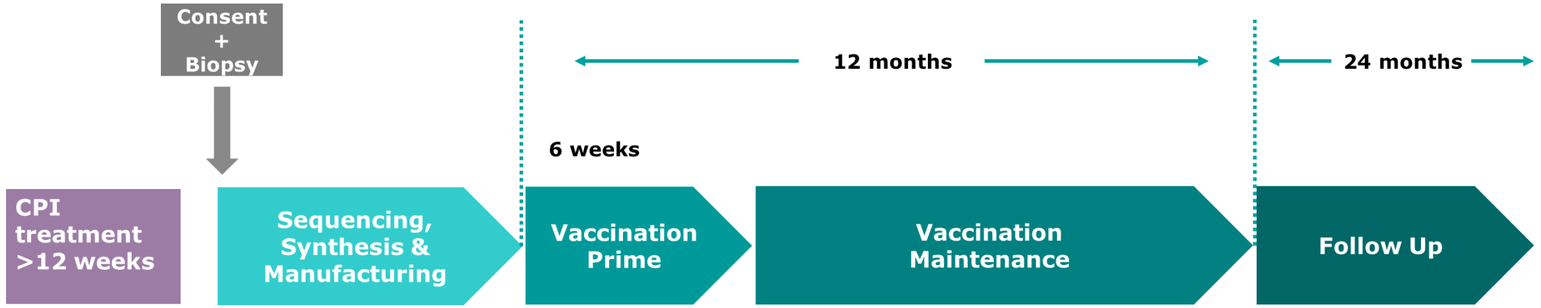
1. The patient has a blood sample and tumor biopsy taken.
2. The samples are sequenced in order to identify the tumor-specific mutations and immune markers.

3. Vaccibody's proprietary neoantigen selection algorithm, NeoSELECT™, selects the optimal tumor-specific mutations (neoantigens) to be included in the vaccine.
4. The vaccine is designed and synthesized.

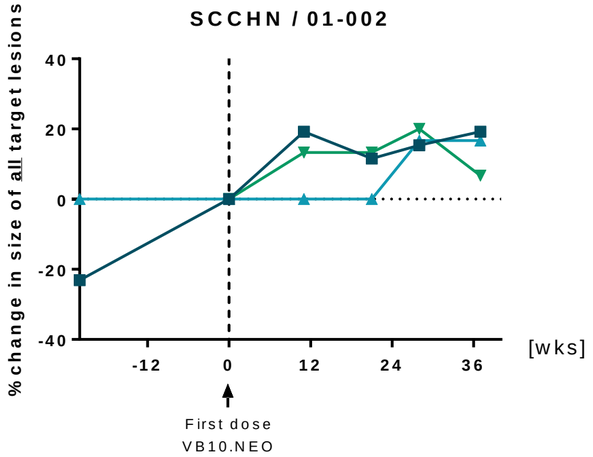
5. The patient's specific gene construct is cloned into a VB10.NEO master plasmid (MP).
6. The personalized cell bank is generated to be used in small-scale manufacturing.

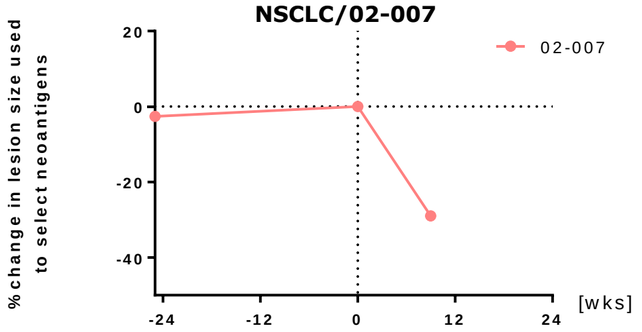
7. The drug substance is produced through recombinant microbial fermentation.
8. The bulk drug substance (BDS) is sterilized and filled into vials to form the final drug product for use in one patient.

VB N-01 study design facilitates efficacy readouts in each patient



- Inclusion criteria: previous treatment with checkpoint inhibitor for >12 weeks at enrollment
  - Late stage cancer patients not responding optimally to CPI
  - With ~12 weeks manufacturing time, patients have been treated at least 6 months on CPI before 1st dose VB10.NEO
  - Limited tumor reduction expected from continuous checkpoint inhibitor treatment after 6 months





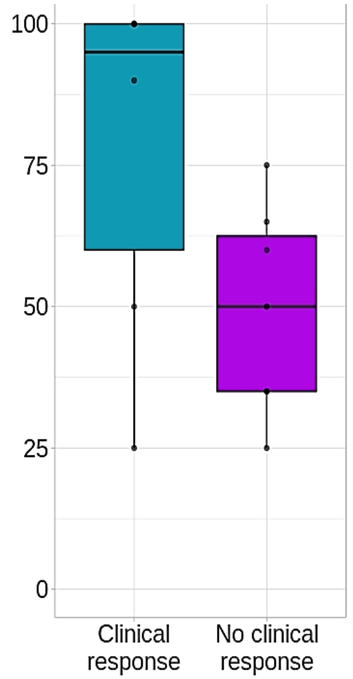
#examples of patient lesion size development before and after starting VB10.NEO

- Strong signs of clinical efficacy caused by VB10.NEO
  - Marked changes in lesion size development observed after initiating VB10.NEO
    - Shrinkage of tumors and stabilization of progressing lesions

*CPI: checkpoint inhibitor

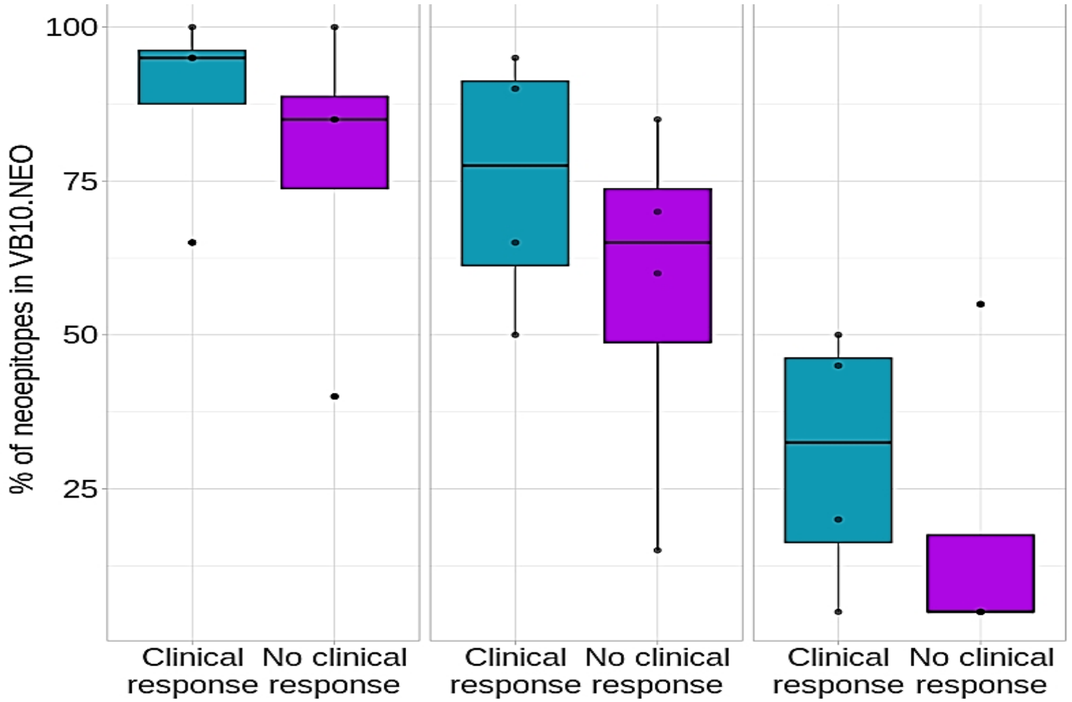
Patients With Responses Have the Strongest Immune Response Profile and Highest Frequency of High-Quality Neoepitope

Frequency of high quality neoepitopes vs change in lesion size



Patients with response after VB10.NEO vaccinations have:
- Highest frequency of high quality neoepitopes

Frequency of immunogenic neoepitopes vs change in lesion size

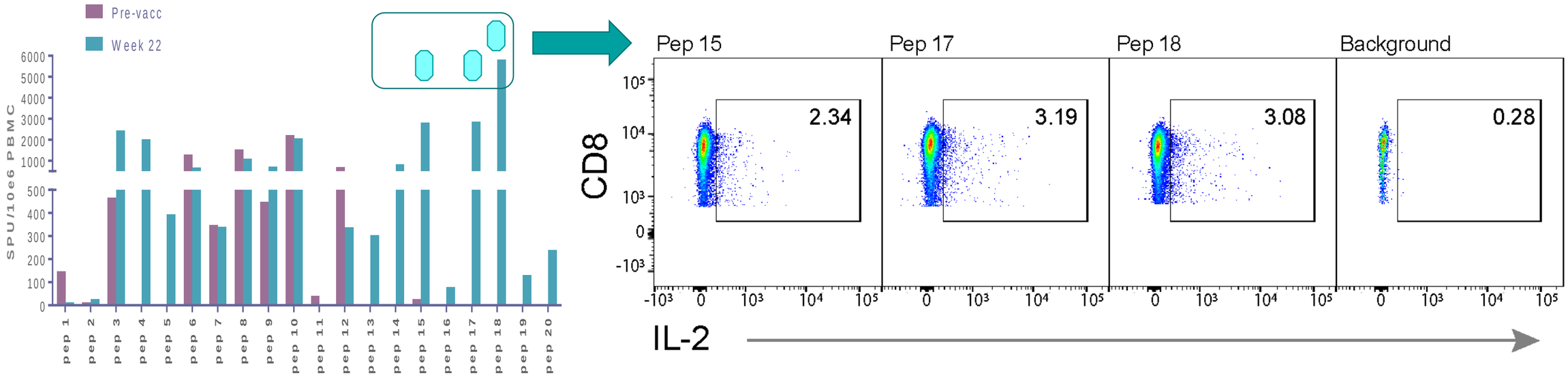


Patients with response after VB10.NEO vaccinations have:
- A) Highest frequency of immunogenic neoepitopes
- B) Highest frequency of increased response after vaccination
- C) Highest frequency of de novo immune responses

Clinical response is here defined as reduction in the sum of target lesions by at least 10% or stabilization of prior progressing lesions

Neoepitope-specific CD8 dominating immune responses in SCCHN patients with clinical response

3 epitopes from patient 01-004



- The strongest responses were characterized as dominating CD8 T cell responses by FACS analysis in several patients

* As identified by IFN-γ ELISpot

VB10.NEO Causes Shrinkage of Tumors and Stabilization of Progressing Lesions

VB10.NEO is able to shrink tumours or stabilize progressing lesions in multiple patients with advanced metastatic disease after long-term CPI treatment.

- Shrinkage occurs 9-24 weeks after first dose VB10.NEO
- Optimal shrinkage in lesion used to select neoepitopes
- Tumour cells with neoantigens targeted by the vaccine are specifically killed
- Optimal responses in patients with highest frequency of high-quality neoepitopes
- Optimal responses in patients with strongest immune responses
- Strong, dominant CD8 responses in patients with clinical responses

VB N-01 update

- 39 (out of 50) patients are enrolled in the study
- Successfully implemented circulating tumor DNA assessment in neoepitope selection
- 100% manufacturing success rate
- Consistent reduction in turn around time (needle to needle) observed from start of trial to now
- Positive dialogue with authorities indicates significant potential for further reductions
- Supports Vaccibody's potential as best in class in manufacturing robustness and turn around time

- **Sites are still active and recruiting despite COVID-19**
- **Supply Chain still operating**
- **On track to finalize enrolment in 2020**

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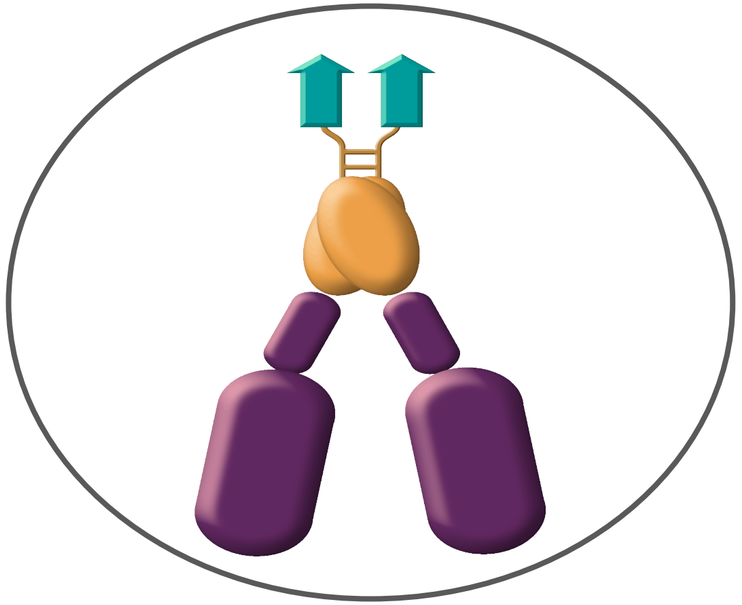
Initiating internal research to develop Infectious disease vaccine products

- Leverage on experience with Vaccibody platform technology and professional organization
- Ready to broaden the product portfolio
- Pre-clinical proof-of-concept in multiple infectious disease indications and species
- Versatile format and ability to tailor immune responses
- Attractive manufacturing process, stable products and proven tolerability
- Rapid, strong and long-lasting immune responses



Attractive new product opportunities within infectious diseases

Gunnstein Norheim joins Vaccibody to lead the Infectious Disease initiative

Background

- MSc Pharm and PhD, University of Oslo, Norway
- >18 years experience in vaccine development and infectious disease research, mainly epidemic diseases (meningitis, Ebola, TB)
- Part of Ebola ring vaccination efficacy trial (West Africa) core group from 2014-16
- Formerly NIPH, University of Oxford (post doc), CEPI (Vaccine science director)

Vaccibody role

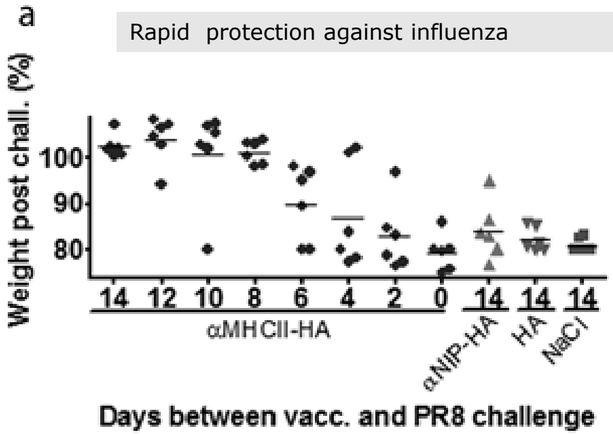
- Director Infectious disease program
- Responsible for the developement of a strategy for research and product development within infectious diseases

Broad pre-clinical proof-of-concept data sets with Vaccibody in infectious diseases

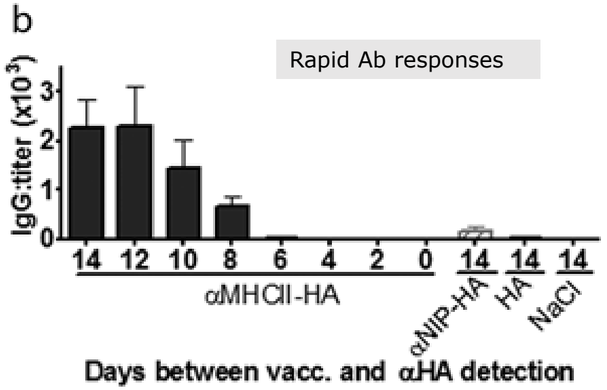
Induces rapid, strong long-lasting humoral and T-cell responses in multiple species

Rapid and strong humoral responses translating into both rapid and long-lasting protection against influenza-mice

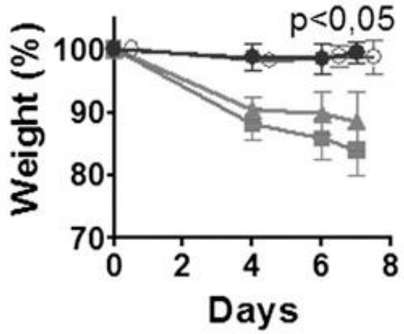
Rapid protection against influenza



Rapid Ab responses



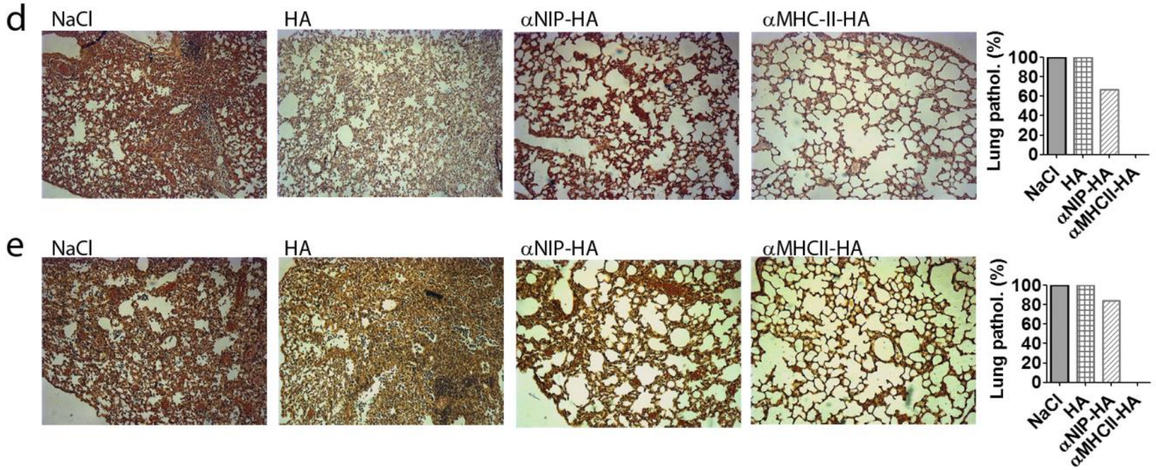
Long-lasting protection against influenza (Challenged after 10 months)



Lung pathology confirms the rapid and long-lasting protective efficacy of VB against influenza

14 days

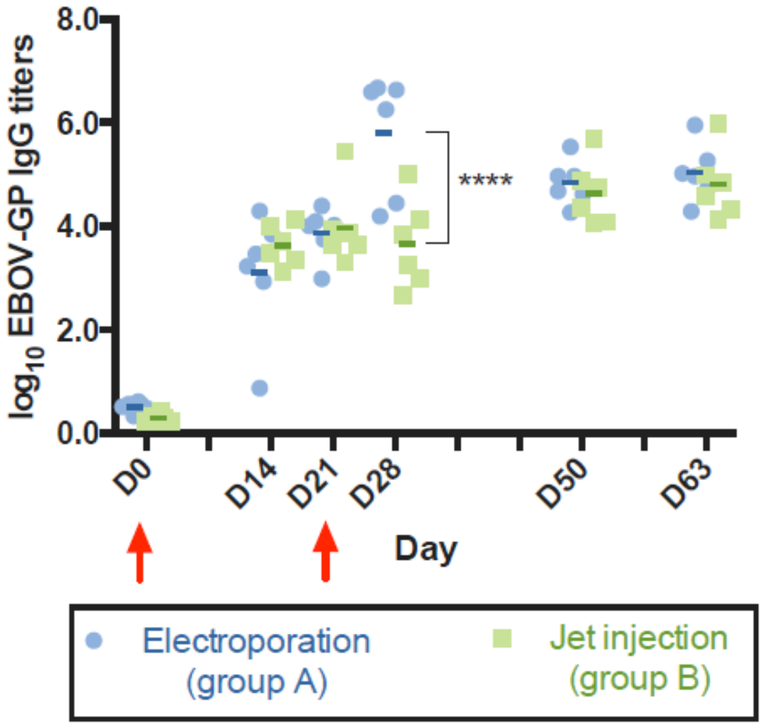
10 months

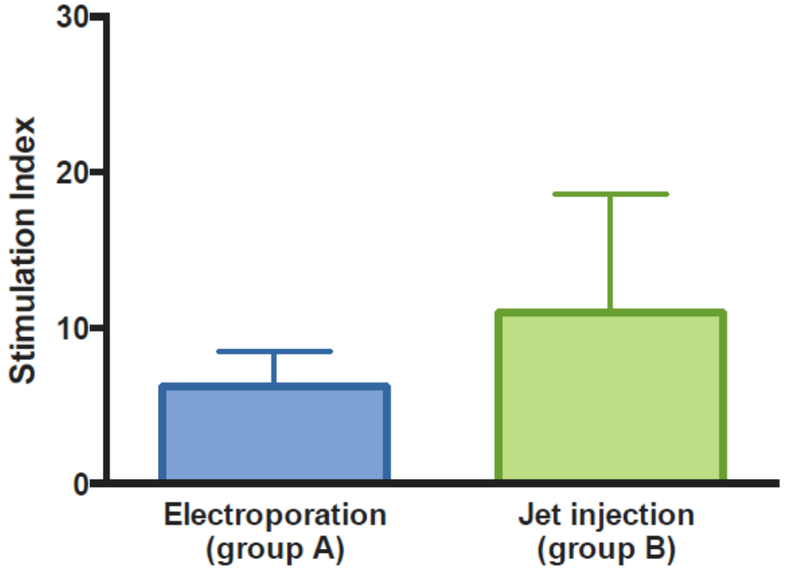


- A single Vaccibody DNA vaccine rapidly induces protective levels of antibodies leading to protection against a lethal challenge of influenza virus 8 days post a single vaccination
- Long term memory responses are induced conferring protection at least 10 months post a single DNA vaccination

Grodeland et al. 2013

VB against Ebola induces rapid and strong humoral and cellular responses in guinea pigs

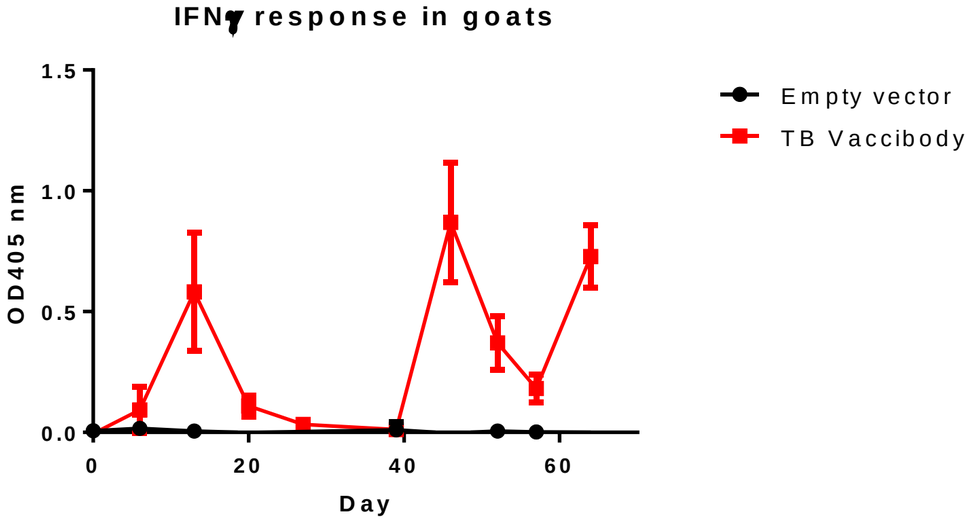


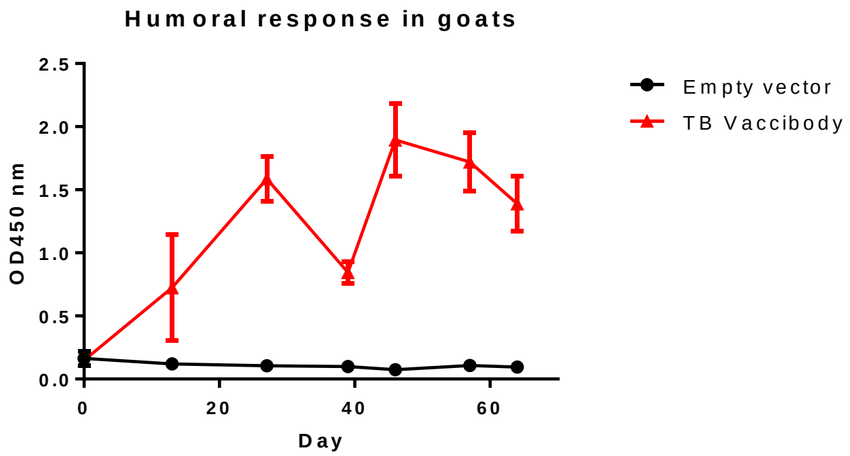


- **Rapid and strong Antibody and T cell responses observed with Vaccibody vaccine against Ebola in guinea pigs**

Collaboration with University of Gothenberg 2015, unpublished

Vaccibody as DNA Vaccine against Tuberculosis in Goats





Vaccibody against tuberculosis induces strong antibody and T cell responses in goats

Own data 2014, unpublished

Strong rationale for moving into infectious diseases

1

Efficacy

- Targeting to APC creates rapid and strong immune responses after fewer and lower doses than most other vaccines
- Both Ab and T cell responses are significantly enhanced with Vaccibody compared to non-targeted vaccines
- The rapid immune response post prime opens up for late or even **therapeutic** efficacy in infectious diseases
- Attractive delivery mechanism
- T cell responses has a higher potential to respond to conserved epitopes and generate cross-reactive immunity

2

Manufacturing

- High success rate independent of the antigenic sequence
- Experience with the rapid turnaround time (operational and regulatory experience)
- Low COGS, easy to upscale, high stability

3

Safety

- Clinical experience with Vaccibody DNA plasmid vaccines proven to be well tolerated and efficacious

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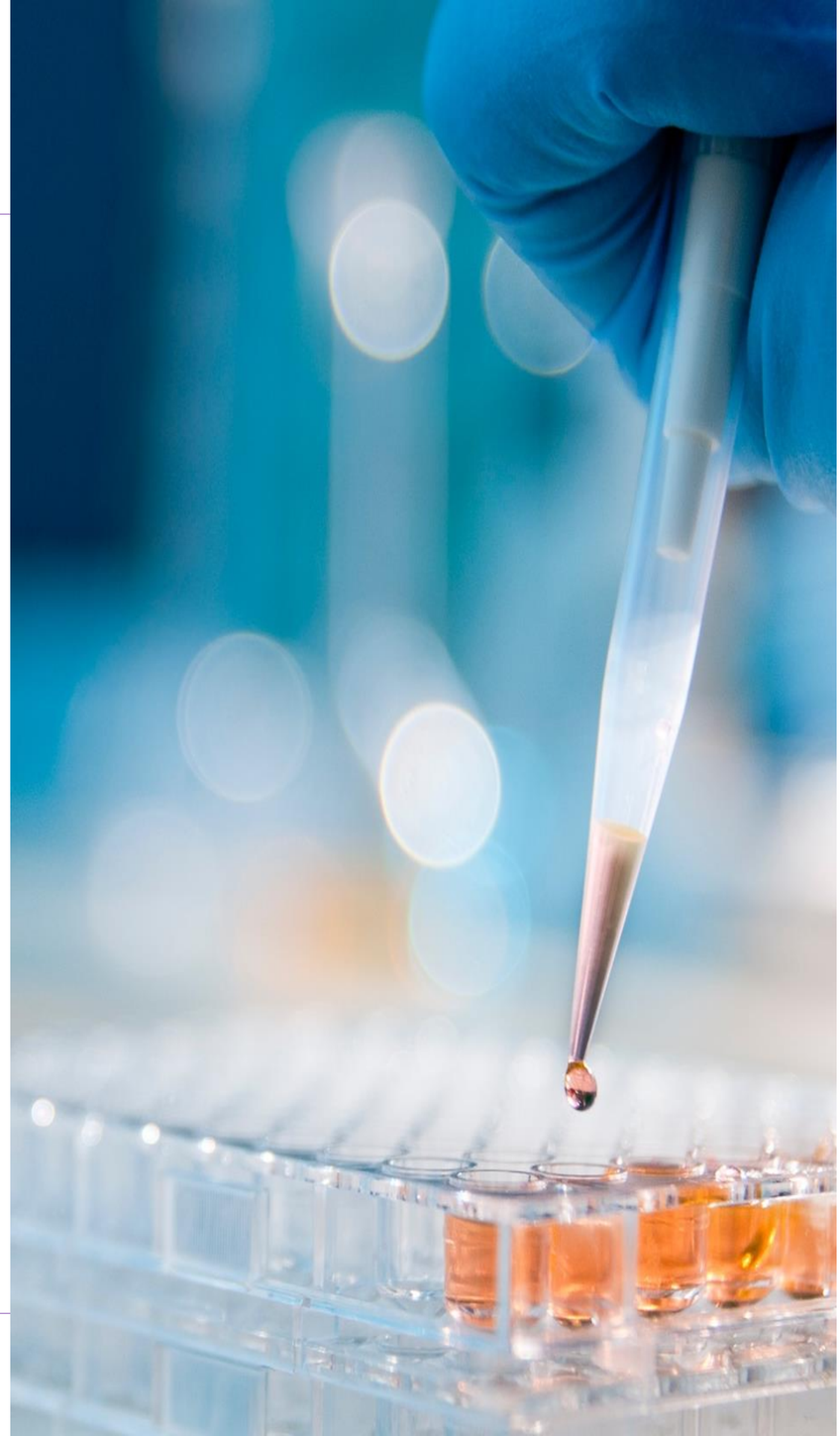
3. Update on cancer activities
4. Update on infectious disease activities
5. **Outlook and Q&A**

2020 Outlook

Program	Clinical trial	Activity	Comments
VB10.NEO	VB N-01	Updated immune response data	Follow-up and expansion from the first data release in June 2019.
VB10.NEO	VB N-01	Dosing of first patient in NKTR-214 combo	Collaboration with Nektar Therapeutics combining VB10.NEO with bempegaldesleukin (NKTR-214 or bempeg), a CD122-preferential IL-2 pathway agonist in advanced head & neck cancer patients.
VB10.NEO	VB N-01	Updated clinical data	Follow-up and expansion from the first data release in November 2019.
VB10.NEO	VB N-01	Finalization of patient enrolment	The VB N-01 clinical trial is a basket trial with six different arms, including the NKTR-214 combination arm. It is estimated that 50 patients will be enrolled.
VB10.16	VB C-02	First patient dosed	Clinical trial testing VB10.16 in up to 50 patients with advanced cervical cancer.
VB10.16	VB C-02	Safety data for first patients	First safety data from the trial.



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