



PCI BIOTECH

Unlocking the potential of innovative medicines

PCI Biotech Holding ASA Investor Presentation

November, 2016



PCI BIOTECH

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No assurance can be given that such expectations will prove to have been correct. PCI Biotech disclaims any obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

INVESTMENT HIGHLIGHTS

- ▶ Strong proprietary core technology with a range of promising development opportunities
-

fima *CHEM*

- ▶ High unmet medical need in bile duct cancer
- ▶ Completed Phase I with very promising signs of efficacy
- ▶ Orphan designation may allow for fast go-to-market opportunity
- ▶ Regulatory interactions to determine fastest way to market

fima *VACC*

- ▶ Lack of immunogenicity is a key challenge for therapeutic vaccines
- ▶ Pre-clinical data showing substantial boost of immune reaction
- ▶ Recent IP – opportunity to both license and create internal pipeline
- ▶ Fast clinical validation through healthy volunteer study

fima *NAC*

- ▶ Main bottlenecks in the field are delivery related
- ▶ Can improve delivery of several types of nucleic acid therapeutics
- ▶ Opportunistic approach with large potential upside
- ▶ Three research collaborations with key players within the last year

AGENDA

- ▶ **Background**
- ▶ PCI Biotech's three programmes
 - **fima** *CHEM*
 - **fima** *VACC*
 - **fima** *NAC*
- ▶ Status, strategy going forward and financing need

PCI BIOTECH AT A GLANCE

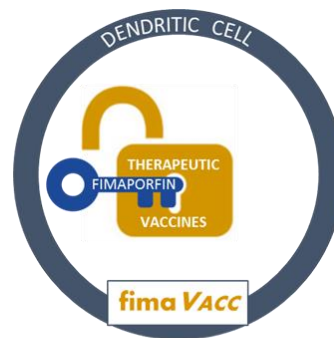
► Unlocking the potential of innovative medicines

- A listed (PCIB:NO) cancer-focused biotech company
- Photochemical internalisation (“PCI”) technology, originating from the Norwegian Radium Hospital
- Clinical programmes
 - fimaCHEM** – Phase I/II with fimaporfin (Amphinex®) for the orphan indication inoperable bile duct cancer
 - fimaVACC** – Vaccination technology that provides strongly enhanced cellular immune responses, phase I initiated
- Pre-clinical programme
 - fimaNAc** – Efficient intracellular delivery of nucleic acid therapeutics, with three active research collaborations

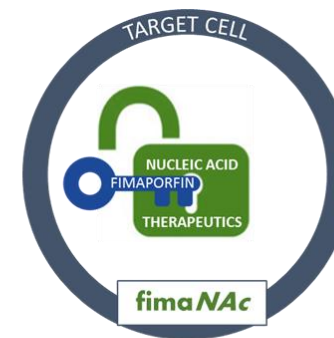
PCI – the solution to a key challenge for several modalities



Enabling approved drugs to fulfil unmet local treatment need



Enhancing cellular immune responses important for therapeutic effect



Providing a delivery solution for nucleic acid therapeutics

PCI BIOTECH

► Experienced Management team, Board and Scientific Advisory Committee

Management

Per Walday, CEO

Ph.D. Physiology
GE Healthcare, Nycomed/Amersham

Ronny Skuggedal, Finance

M.Sc. BA and Economics
State Authorised Public Acc. PwC

Anders Høgset, Science

Ph.D. Biochemistry
Radiumhospitalet, Nycomed

Tone Otterhaug, Clinical

Ph.D. Cand.Pharm. Immunology
Targovax, Lytix, AstraZeneca

Gaël L'Hévéder, Business Development

M.Sc. Bioorganic Chemistry
Aventis, Baxter, Roche

Kristin Eivindvik, Projects & Operations

Cand.Pharm.
Alertis, GE Healthcare, Nycomed/Amersham

Board of Directors

Dr. Hans Peter Bøhn, MD, Chairman

MD and broad experience from management positions in pharma within drug safety, international marketing and operations and clinical research as well as gaining a post-graduate Diploma of Pharmaceutical Medicine.

Professor Kjetil Taskén, MD, PhD

Professor of Medicine at the University of Oslo (UiO) and Director of the Biotechnology Centre of Oslo, UiO.

Dr. Hilde Hermansen Steineger, PhD

PhD in Medical Biochemistry from the UiO. Head of Innovation Management at Pronova BioPharma ASA / BASF.

Dr. Christina Herder, PhD

PhD from Royal Institute of Technology in Stockholm and a MBA from Stockholm University. CEO of Dilaforette AB, previous positions include Sobi.

Dr. Lars Viksmoen, MD

MD and 10 years experience as surgeon and over 25 years with executive roles in pharma, biotech as well as medtech industry. His last position has been as President and CEO of GN ReSound AS, Denmark.

Scientific Advisory Committee

Professor Christoph Huber

Emeritus Professor of Medicine. Co-founder of both Ganymed and BioNTech. Scientific advisor of multiple international biotech companies and advisor of leading European investors.

Professor Jan Vermorken

Emeritus Professor of Oncology. Coordinated large clinical trials in breast and colon cancer, including the OncoVAX®'s Phase III trial. His main research areas concern early clinical and pharmacological studies with new drugs.

Professor Andrew Hughes

Strategy director of the experimental cancer medicine team at The Christie, previous Global VP of early clinical development at AstraZeneca and investigator on over 200 clinical trials.

Professor Kristian Berg

Inventor of the PCI technology.

PHOTOCHEMICAL INTERNALISATION

► Triggered endosomal release through illumination

STEP 1:

- Fimaporfin (S) and the active molecule (D) are injected into the body and reaches the target cells



STEP 2:

- Fimaporfin (S) and the active molecule (D) are taken up by the cell, but D is unable to reach the target (T), as it is encapsulated in an endosome
- S is washed away from the cell membrane, but trapped in endosomes



STEP 3:

- Light activates fimaporfin (S) in the membrane of the endosome
- The membrane integrity is affected and the active molecule released



STEP 4:

- The active molecule (D) can now bind to its target (T) and initiate the therapeutic response



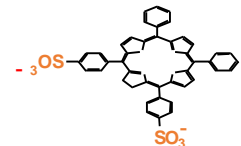
The active molecule

- Anticancer agent, e.g. bleomycin, gemcitabine
- Oligonucleotide, e.g. siRNA
- Protein, e.g. antibody-drug conjugate
- Peptide: e.g. antigen



The PCI component

- Light sensitive component
- Fimaporfin - Amphinex®



The target

- Target for the active molecule
- E.g. DNA, mRNA, enzyme, microtubuli

HISTORICAL MILESTONES



Independent expert commentary:
 “The results of this phase 1, first-in-man, dose-escalation trial... are encouraging. Overall, the results... suggest that photochemical internalisation might have a role in the treatment of early lesions and palliation of advanced disease... These findings provide the basis for further studies.”

2008 - 2013	2014 - 2015	2016
<ul style="list-style-type: none"> ▪ PCI Biotech demerged from Photocure and listed on the Oslo Stock Exchange (2008) ▪ Phase I first-in-man study completed, demonstrating safety and promising efficacy of fimaCHEM, published in <u>Lancet Oncology*</u> ▪ Initiated the ENHANCE study, a Phase II study with Amphinex induced PCI of bleomycin in recurrent inoperable head & neck cancer ▪ Initiated Phase I/II study with Amphinex induced PCI of gemcitabine in inoperable bile duct cancer 	<ul style="list-style-type: none"> ▪ Publication of results showing that fimaVacc can significantly improve vaccination treatment in a melanoma model ▪ Signed first preclinical collaboration agreements with commercial entities for fimaNac ▪ Successful Investigational New Drug application (IND) review for Amphinex ▪ The ENHANCE study stopped and refocus towards the clinical bile duct cancer study and immunotherapy 	<ul style="list-style-type: none"> ▪ Independent evaluation confirms early promising signs of efficacy in the phase I/II bile duct cancer study with fimaCHEM ▪ Granted Orphan Drug Designation of fimaporfin for treatment of bile duct cancer in EU ▪ First subject dosed in the fimaVacc phase I study, to evaluate safety, tolerability and immune responses in healthy volunteers ▪ First preclinical research collaboration for fimaVacc signed

* Lancet Oncology (2016) 17(9): p1217–1229

RESEARCH COLLABORATIONS

► Four active collaborations within nucleic acid therapeutics and vaccination

fimaNAC

RXi Pharmaceuticals



- Initiated 2Q 2015
- Listed on Nasdaq
- Innovative therapeutic siRNA
- Clinical programs in dermatology and ophthalmology

Top-10 large pharma

- Initiated 3Q 2015
- A global leader in nucleic acid therapeutics
- Collaborative research funded by partner
- Evaluate synergistic effects between companies' technologies

BioNTech



- Initiated 3Q 2016
- German biotechnology company developing individualised cancer immunotherapies
- Clinical programmes in melanoma, head & neck, breast, ovarian and pancreatic cancer

fimaVACC

Ultimovacs



- Initiated 1Q 2016
- Norwegian immunotherapy company
- Therapeutic cancer vaccine against human telomerase
- Clinical programs in prostate and lung cancer

Research collaborations aim to evaluate synergies between the fima platform and partner technologies, with the potential for further partnerships

AGENDA

- ▶ Background
- ▶ **PCI Biotech's three programmes**
 - **fima** *CHEM*
 - fima *VACC*
 - fima *NAC*
- ▶ Status, strategy going forward and financing need

CHEMOTHERAPEUTICS

▶ A cornerstone in current cancer therapy

Chemotherapeutics
will remain a
CORNERSTONE
in cancer treatment
for the foreseeable
future

PCI may enhance
approximately
20%
of relevant approved
chemotherapies

Niche indications
may allow for
**ORPHAN
DRUG**
applications

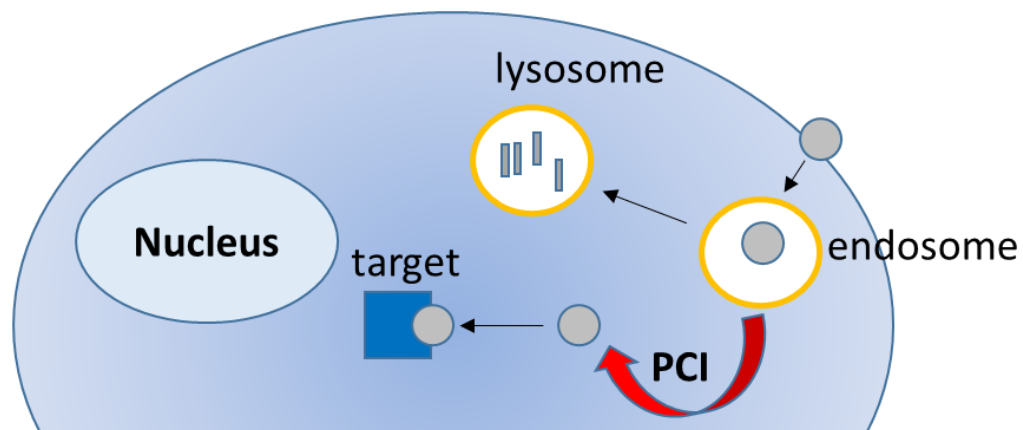
- ▶ **fima *CHEM*** may enable approved drugs to fulfil unmet local treatment needs
- ▶ First-in-man study published in *Lancet Oncology**, with independent expert commentary
- ▶ Ready for Phase II in bile duct cancer with promising early signs of efficacy
- ▶ Opportunity for development in further niche indications

* *Lancet Oncology* (2016) 17(9): p1217–1229

PCI TECHNOLOGY

► fimaCHEM – mode of action

Cancer cell

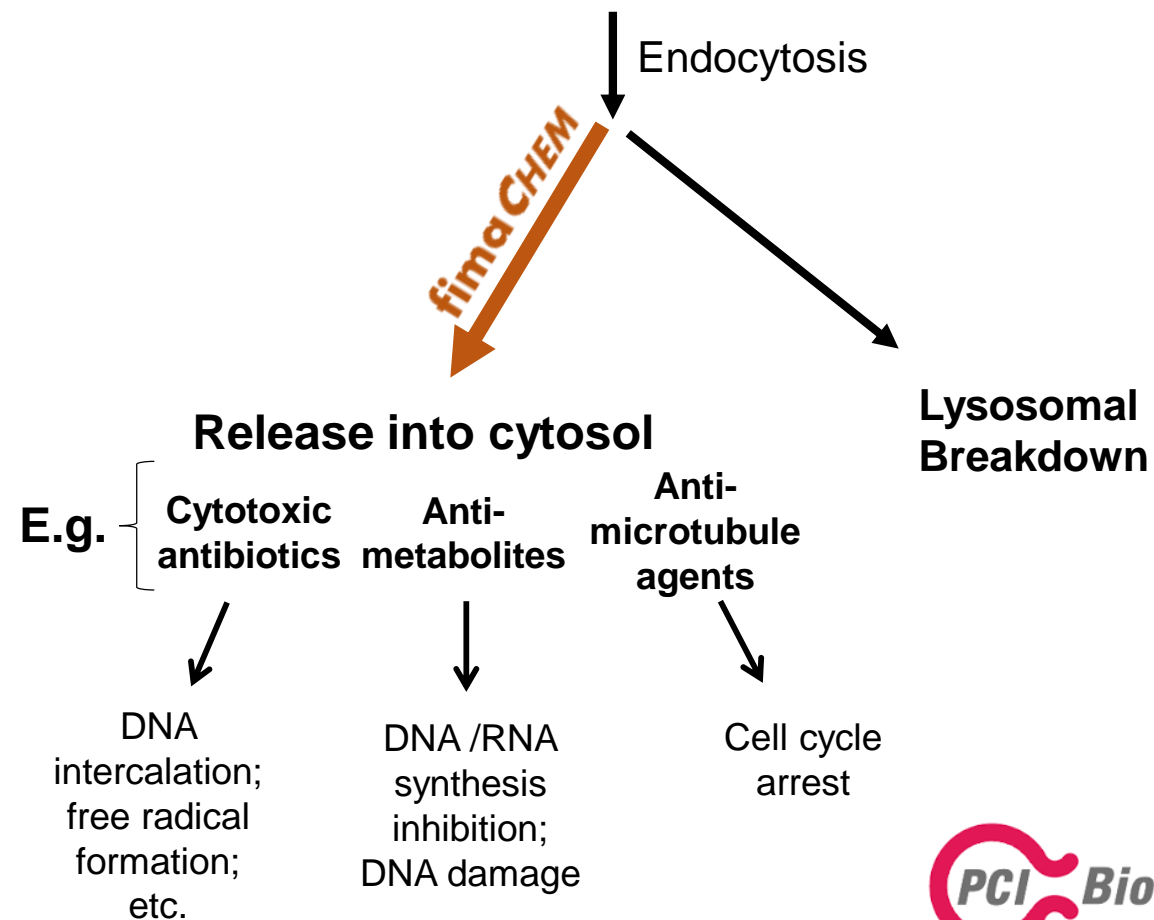


● chemotherapeutic

The intracellular trafficking of chemotherapeutics is not well characterised for many products, but it is known that endocytotic uptake and/or sequestering into endosomes can lead to high endosomal concentrations.

PCI can release biologically active chemotherapeutics that are trapped in endosomes, thereby enabling them to reach their target before being inactivated in lysosomes.

Chemotherapeutics



BILE DUCT CANCER

► The opportunity

High unmet medical need

- Overall survival of inoperable disease is ~12 months
- Five year survival of inoperable disease is 0%
- Tumour response may be more critical than for other cancers
 - tumours tend to block the bile duct
 - biliary drainage is key for patient treatment and survival

Promising early signs of efficacy

- Strikingly high (4/7) durable tumour response rate (CR+PR)
- Two CR among seven evaluable pts in highest dose cohorts
- RECIST evaluation confirmed by two independent experts
- Good overall safety and tolerability

fimaCHEM for
bile duct cancer

Well-defined market

- First-line treatment in a rare disease with limited pipeline
- Approx 3,000 pts in US + Europe eligible for treatment
- Potential upside: metastatic disease & Asia (high incidence)
- Orphan Designation (OD) in EU; US in planning
 - provides development & commercialisation benefits
 - OD drugs have higher probability of success and price

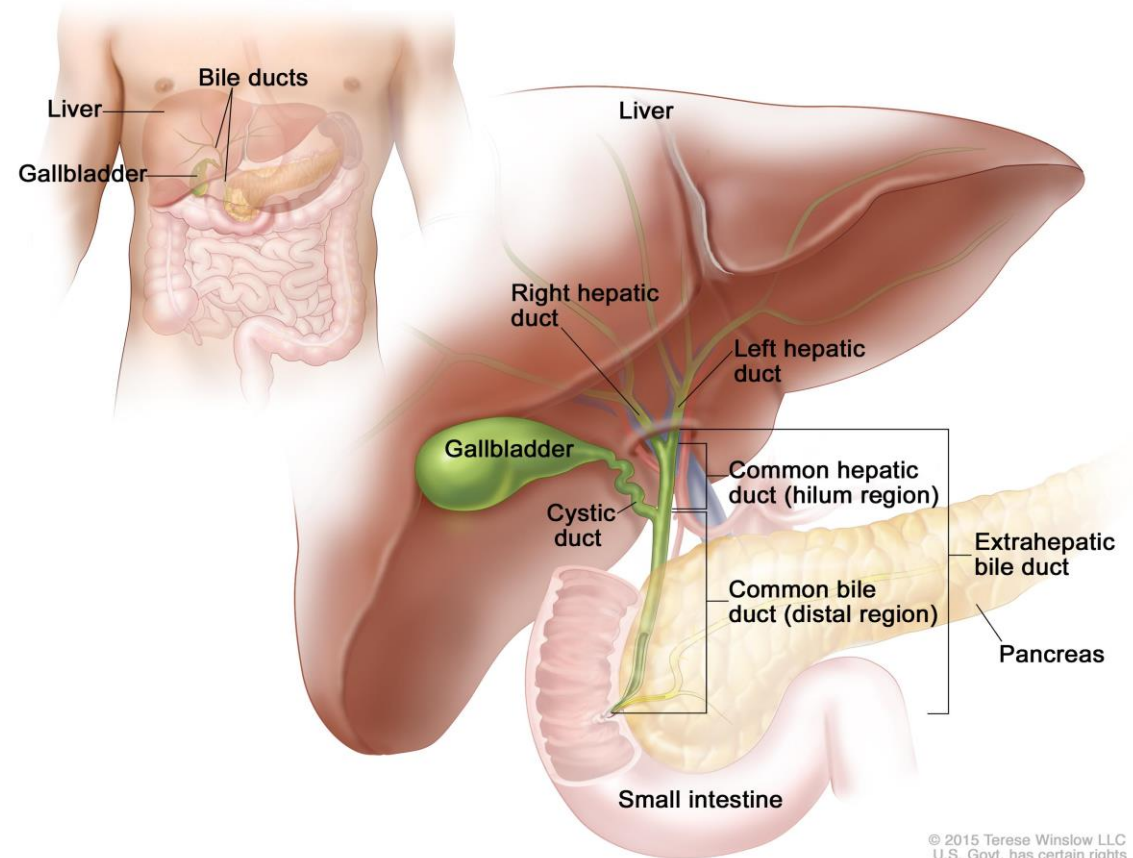
Proven technology with excellent fit

- First-in-man Phase I study published in Lancet Oncology
- Easy light access through standard endoscopic procedure
- Significantly enhancing the active standard-of-care drug
 - boosting effect where most needed – inside the bile duct
 - potential for local re-treatment

BILE DUCT

► Location and function

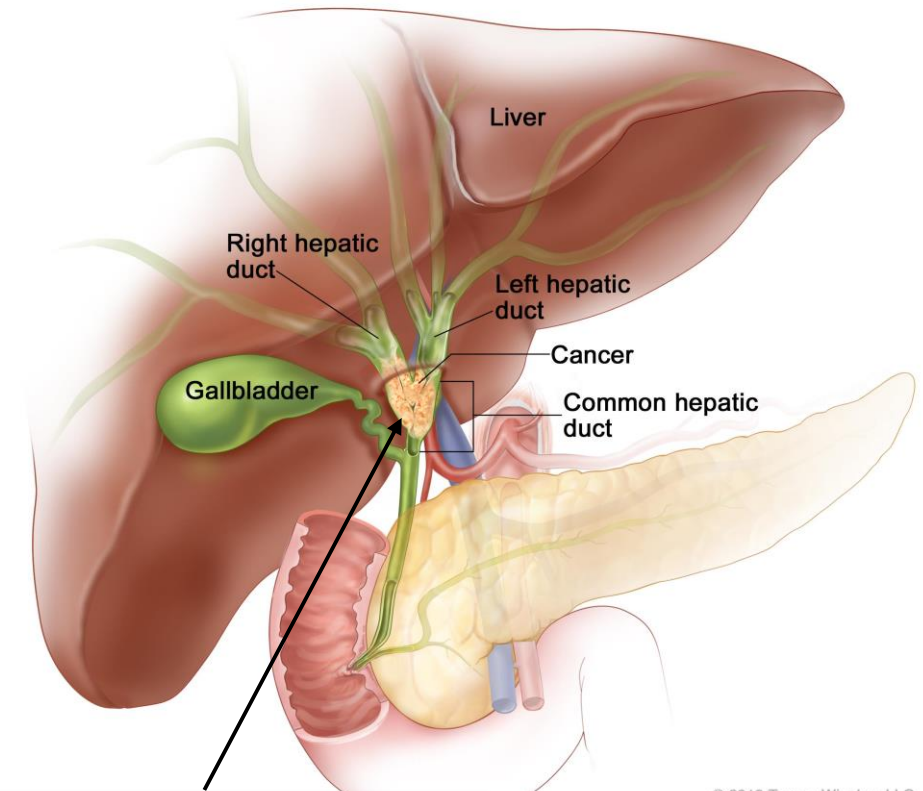
- The biliary system consists of a network of ducts that carry bile from the liver to the small bowel
- Bile is produced by the liver and is important for fat digestion
- The biliary system is classified by its anatomic location



BILE DUCT CANCER

► Location and classification

- Often referred to as cholangiocarcinoma
- The cancer cells originates from the cells inside the bile duct (called cholangiocytes)
- Cholangiocarcinoma includes:
 - Intrahepatic tumours (10%*)
 - Perihilar tumours (60-70%*)
 - Distal tumours (20-30%*)
 - Different incidence, pathobiology and management



Perihilar bile duct cancer is the initial target for PCI treatment

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BILE DUCT CANCER

▶ The unmet need

- ▶ Rare disease, yearly incidence rate of 1-2 per 100,000 in the western world – higher incidences in Asia
- ▶ Five-year survival rate of less than 5%, and 0% when inoperable – average approx. 12 months survival
- ▶ Current management
 - Surgery
 - Only potentially curative treatment
 - Less than 1/3 are resectable at presentation
 - Stenting
 - **Endoscopic** stenting for palliative biliary drainage
 - Chemotherapy
 - No approved chemotherapy
 - Recommended chemotherapy: **gemcitabine** and cisplatin



Excellent technology fit with PCI

Targeted illumination is done using standard endoscopic procedure

The active chemotherapy gemcitabine is significantly enhanced by **fimaCHEM**

BILE DUCT CANCER

▶ A sizeable orphan market potential

▶ Immediate target market is as first line treatment

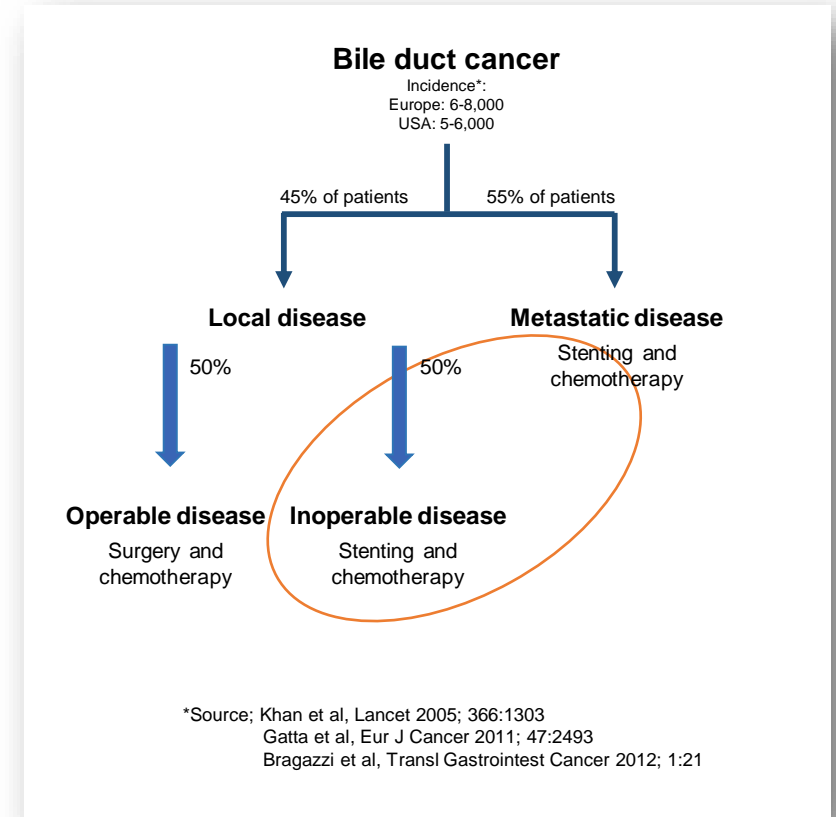
- Incidence is close to 15,000 across Europe and the US
- Immediate target is inoperable patients with local disease
- Approximately 3,000 assumed to be eligible for **fimaCHEM**
- Possible upside in distal and more advanced metastatic disease
- Higher incidences in Asia

▶ Attractive price potential

- Lack of approved medicinal treatment options
- Diseases with <10,000 in US support annual pricing >\$100,000¹

▶ Potential significant majority share of the market

- Anticipated benefits
 - No competing marketable treatment alternatives
 - Greater efficacy due to local chemotherapy boost
 - Easy light access through established standard procedures

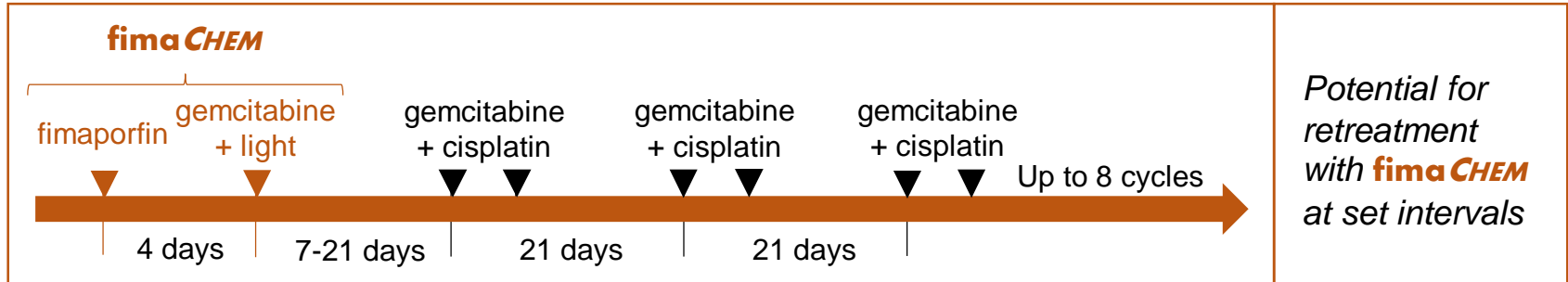
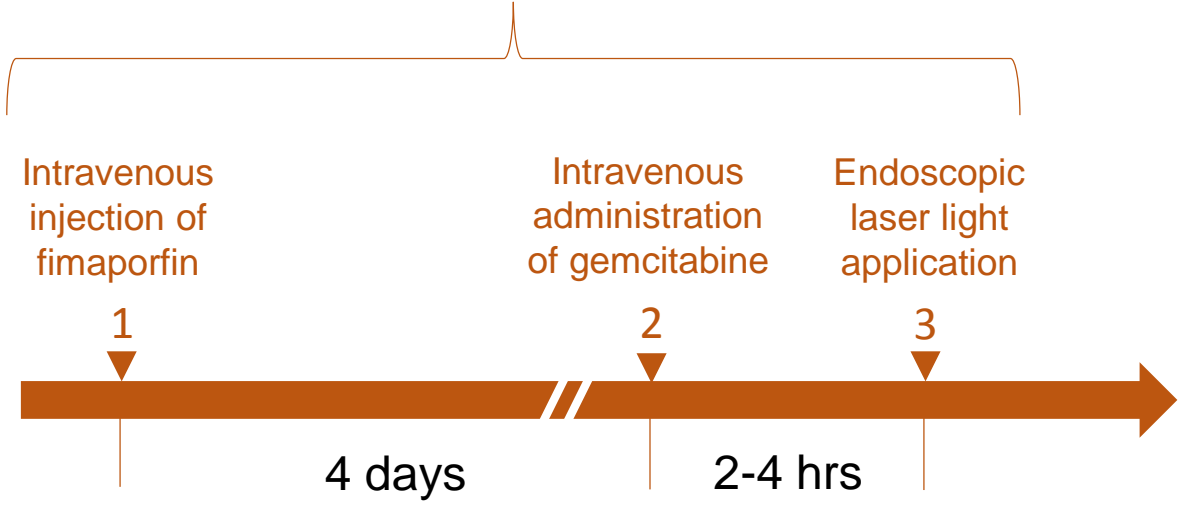


BILE DUCT CANCER

► A proven technology with excellent fit to standard procedures

fimaCHEM

A three step treatment procedure



BILE DUCT CANCER – CLINICAL PHASE I/II STUDY

► Early promising signs of durable response in Phase I

► 6 months radiology data from all dose cohorts – local read

RECIST*	PD	SD	PR	CR	NA**
Cohort IV***	1		2	1	2
Cohort III		1	1	1	
Cohort II		1			2
Cohort I	1	1			1

PD: Progressive disease
(>20% growth)

SD: Stable Disease

PR: Partial Response
(>30% shrinkage)

CR: Complete Response
(no visible tumour)

* Response Evaluation Criteria In Solid Tumours (rules defining when cancer patients improve, stay the same or worsen during treatments)

** Not measurable / Not radiologically evaluable

*** Cohort IV expanded; Four radiologically evaluable patients at 6 months

- Subjects are in the study for 6 months after PCI treatment
- After 6 months patients are followed for survival only
- Commissioned central independent radiological expert evaluation of Cohort III & IV, as this is an expected requirement from regulatory authorities

BILE DUCT CANCER – CLINICAL PHASE I/II STUDY

▶ Early promising signs of durable response verified by independent expert evaluation

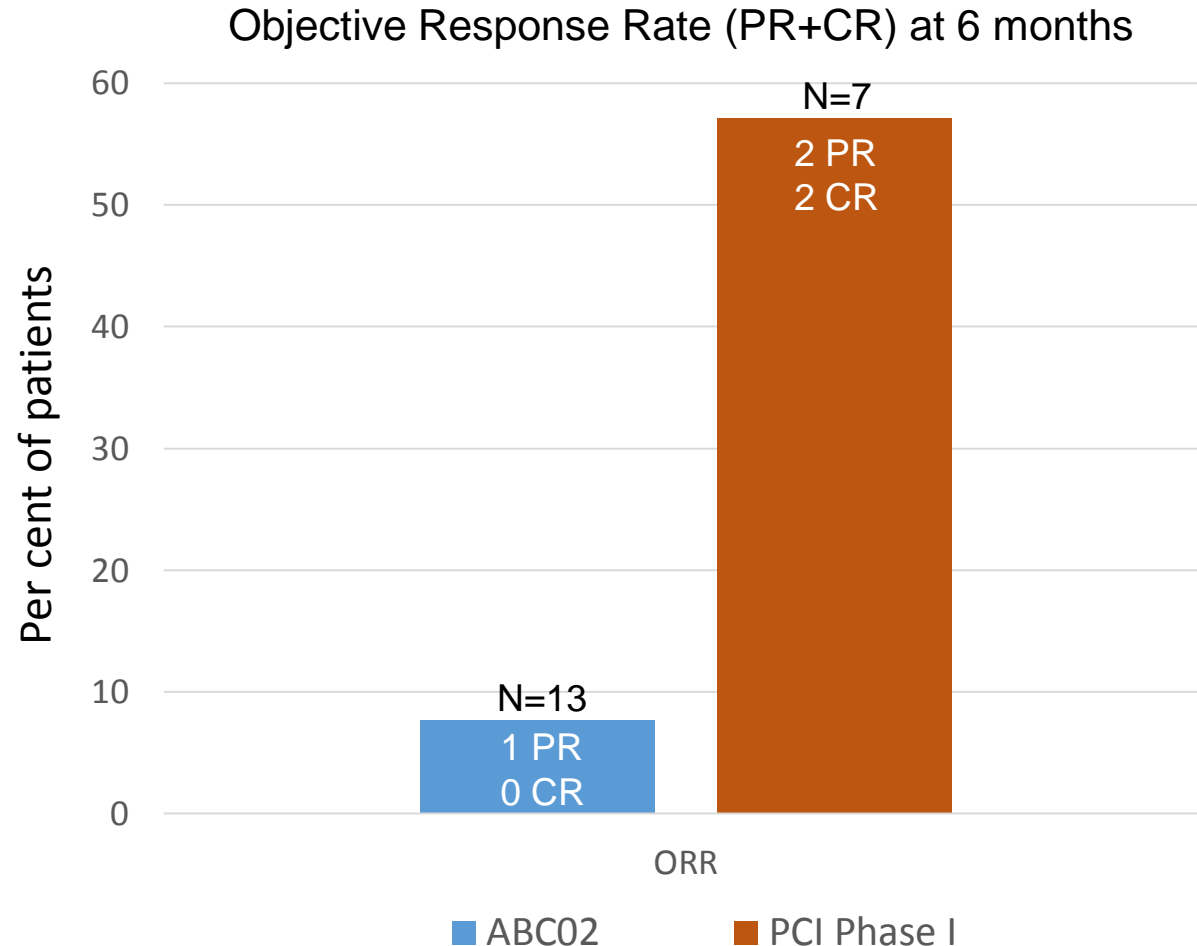
▶ 6 months radiology data: Cohort III & IV – local vs. central

RECIST	PD	SD	PR	CR	NA
Local	1	1	3	2	2
Central	2	1	2	2	2

- Central radiological RECIST evaluation of all patient images from Cohort III and IV
- All images evaluated separately by two study-independent experts in RECIST and bile duct cancer
- Tumour response verified at central evaluation
 - Progressive disease due to appearance of new lesions (one missed at local read)
- **More than 50% response rate** – far above expected with standard treatment

BILE DUCT CANCER – CLINICAL PHASE I/II STUDY

► Comparing response rate to cis/gem landmark publication (ABC02) in NEJM



ABC02 subpopulation*

- Treatment naïve
- Hilar carcinoma
- Cis/gem treatment
- Local read
- N=13

PCI Phase I

- Treatment naïve
- Hilar carcinoma
- **fimaCHEM** + cis/gem treatment
- Cohort III & IV
- Independent evaluation
- N=7

* Courtesy of Dr Juan Valle, first author of landmark publication for cis-gem treatment (NEJM 2010 362;14)

BILE DUCT CANCER – CLINICAL PHASE I/II STUDY

► Convincing response at target tumour level

► 6 months radiology data: Cohort III & IV – response at single lesion level

Measurable lesions	Lesion shrinkage		Stable lesion	Lesion growth
19 (total number of targets selected across the two independent readers)	17	12 (lesion not detectable)	1 (<20% reduction & <10% increase)	1 (>10% mass increase)
		5 (>20% mass reduction)		

- Independent radiological evaluation of all patient images from Cohort III and IV
- All images evaluated separately by two radiology experts
- **Shrinkage of almost 90% of selected target lesions, with more than 60% being undetectable at 6 months**
- “Change in tumor size by RECIST correlates linearly with overall survival in Phase I oncology studies”¹

² **“Maintenance of biliary drainage is critical in patients with advanced biliary cancer...
...response in tumor bulk may therefore have a greater effect on survival than would be the case for other cancers.”**

¹ Jain et al 2012 – JCO 30:2684-90 (analysis of 24 phase I studies)

² Valle et al 2010 – NEJM 362:1273-81 (landmark publication for cis-gem treatment in bile duct cancer)

BILE DUCT CANCER

▶ Status and strategy going forward

- ▶ **Phase I completed with good tolerability and very promising early signs of efficacy**
 - No serious unexpected safety findings and no apparent increase in adverse reactions with increasing doses
 - Very promising early signs of efficacy – significant tumour shrinkage observed radiologically
 - Results verified at central evaluation by study-independent external radiological experts in RECIST

- ▶ **Orphan designation**
 - Granted Orphan Drug Designation in EU
 - US application in process

- ▶ **Initiating regulatory interactions with EU and US authorities, to determine fastest way to market**
 - Promising signs of efficacy in a life threatening orphan indication without approved treatment alternatives
 - May allow for marketing authorisation based on restricted data, e.g. a pivotal phase II study

- ▶ **The Phase I results have furnished increased external interest**
 - To be assessed in relation to various financing and partnering alternatives for further development

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 - **fimaVACC**
 - *fimaNAc*
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IMMUNOTHERAPY

▶ A new hope for millions of patients

Total estimated immunotherapy sales of

\$35bn

in 2023*

More than

100

projects in development**

Combinations with
THERAPEUTIC VACCINES
may enhance CPI***
response rates

- ▶ **fima VACC** enhances cellular immune responses important for therapeutic effects
- ▶ Initiated Phase I study in healthy volunteers for clinical validation
- ▶ Aim is to out-license the technology on non-/semi-exclusive basis
- ▶ Opportunity to develop own therapeutic vaccination products

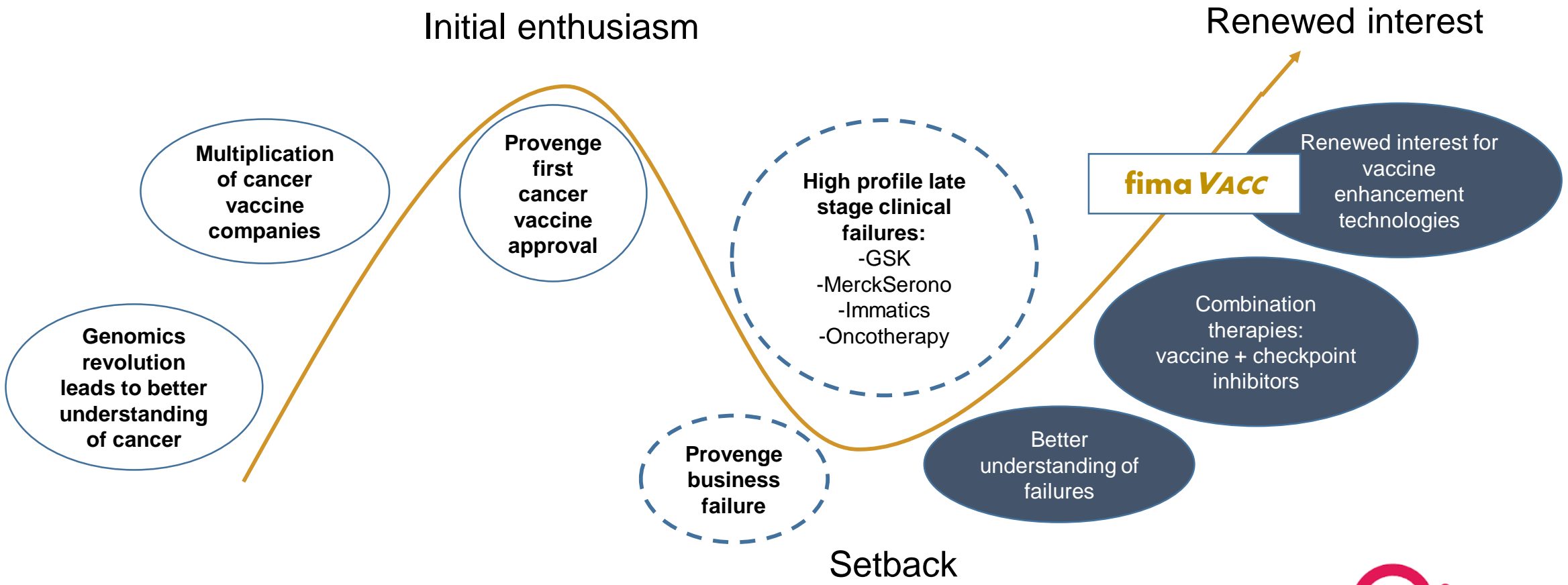
* Citi Research "Immunotherapy – the beginning of the end for cancer". Baum, May 2013

** Clinicaltrials.gov. Therapeutic cancer vaccines, PCIB analysis, August 2016

*** CPI: Checkpoint inhibitors

IMMUNOTHERAPY

► Evolution of the therapeutic cancer vaccines field



THERAPEUTIC VACCINATION WITH **fima VACC**

▶ Opportunity to play a key role in second generation immunotherapy

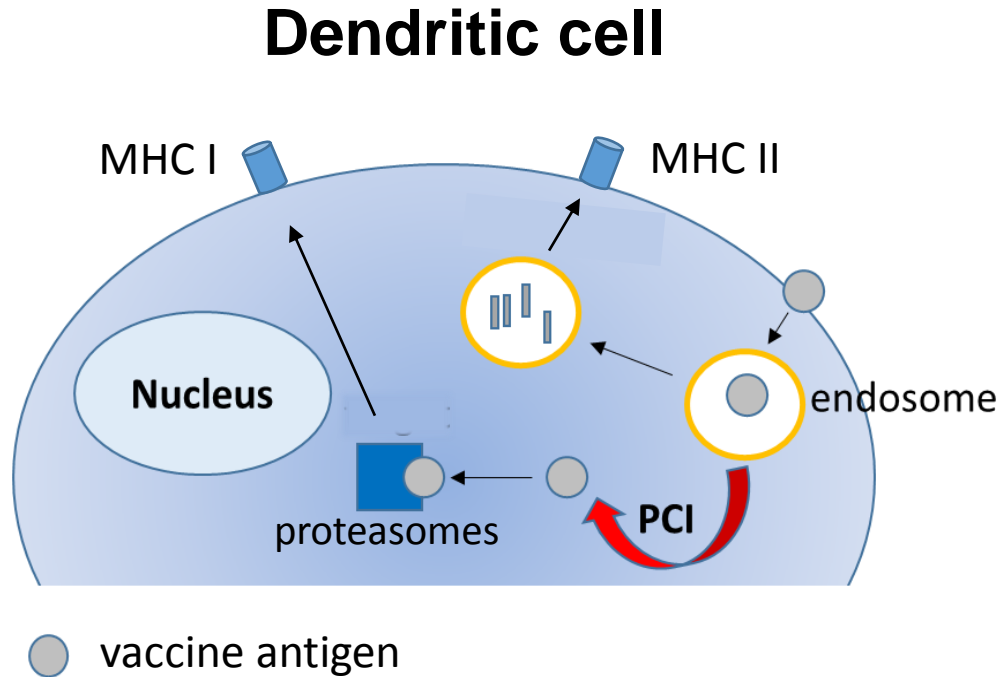


Patented disposable “band-aid-like” device for user-friendly illumination of the vaccination site

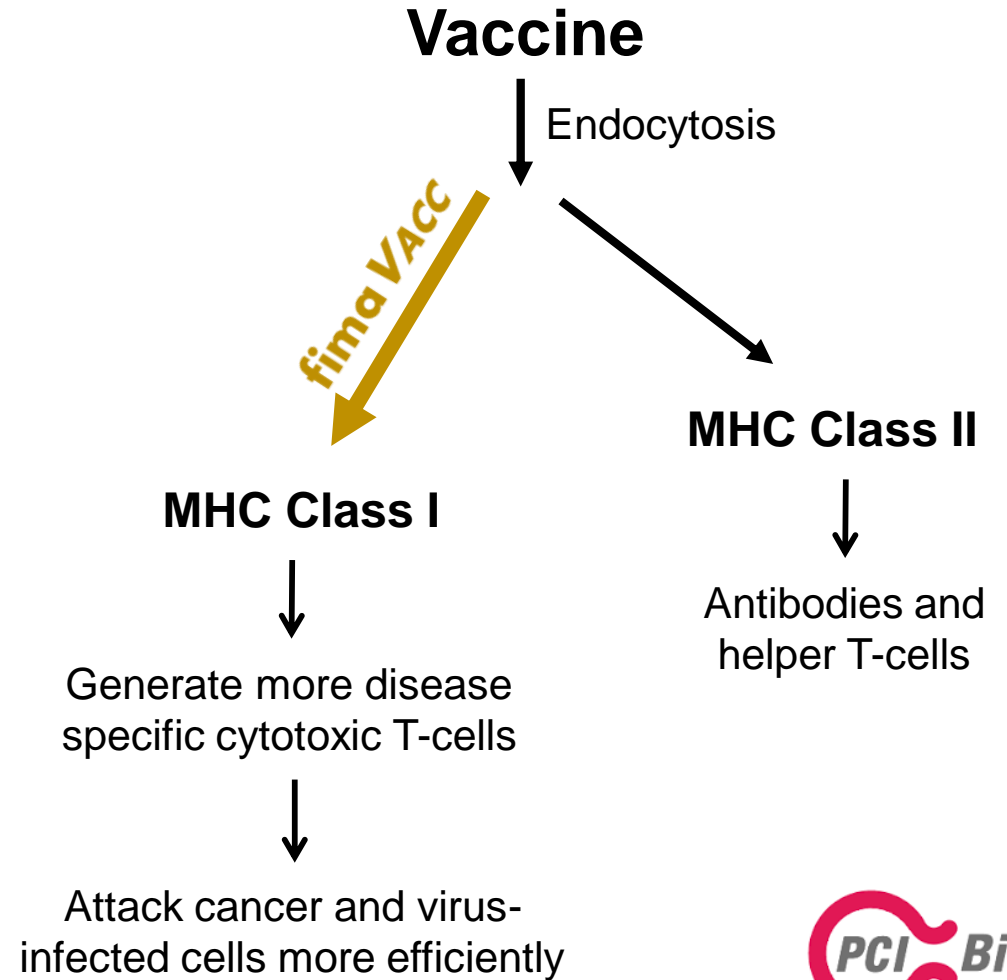
- ▶ Unique mode of action
 - induction of antigen specific cytotoxic T-cells by MHC class I antigen presentation in dendritic cells
- ▶ Broad applicability
 - peptide and protein antigens
 - particulate antigen formulations
 - prophylactic & therapeutic vaccination
- ▶ Safety of fimaporfin confirmed in Phase I studies
- ▶ Excellent stability
 - stable at room temperature
 - stable in solution
 - can be autoclaved
- ▶ Cost effective synthesis

PCI TECHNOLOGY

► fima VACC – mode of action



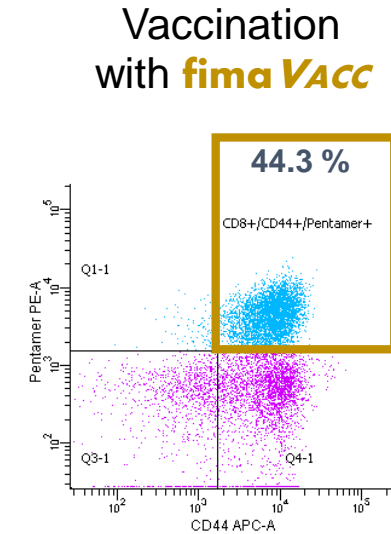
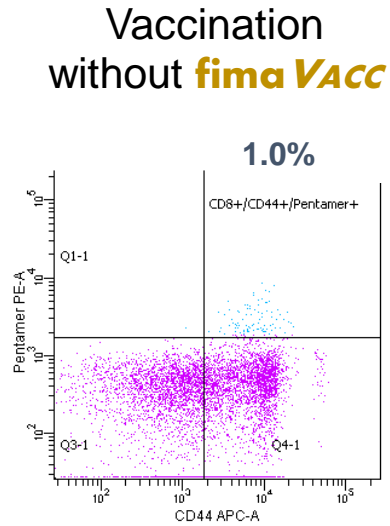
Vaccine antigens taken up by dendritic immune cells are released into the cytosol by **fima VACC** treatment. Proteasomes in the cytosol process these to short peptides. The peptides bind to MHC class I proteins that are transported to the cell surface, leading to an enhanced MHC class I presentation of the administered vaccine antigen.



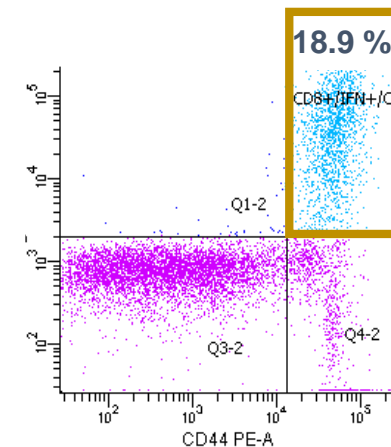
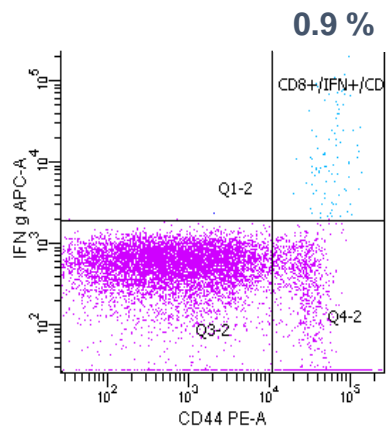
fima VACC STRONGLY ENHANCES VACCINATION EFFECTS

► Impressive effects with clinically relevant HPV therapeutic vaccine in mice

Amount of activated antigen-specific CD8 T-cells in blood



Amount of activated antigen-specific CD8 T-cells in spleen

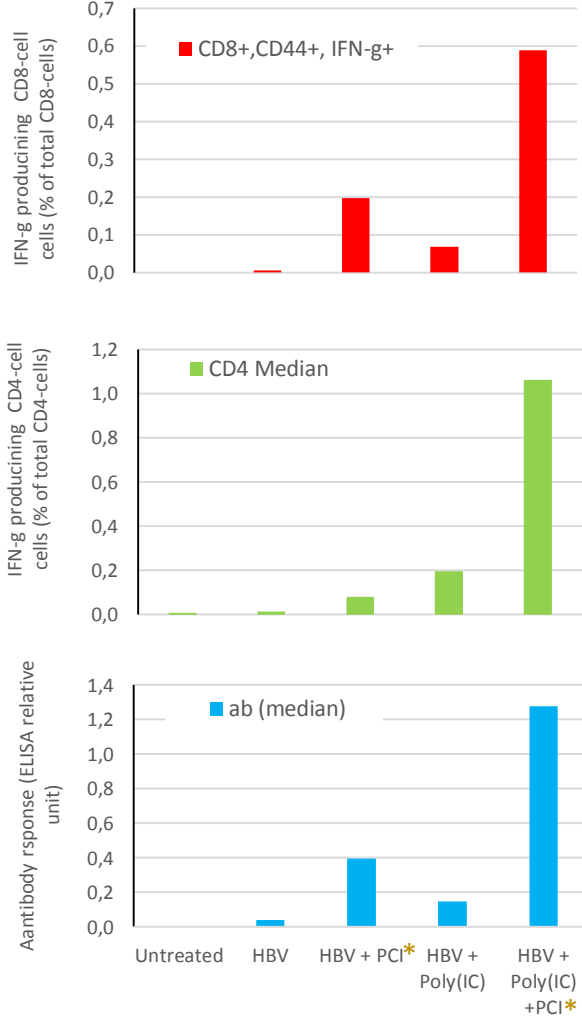


Cytotoxic (CD8) T-cells

- Most important immune cells to fight tumours
- Difficult to induce with vaccination
- **fima VACC** strongly enhances the ability of vaccines to induce CD8 T-cells:
 - >20 and >40 times enhancement seen in spleen and blood cells, respectively
 - Generation of immunological memory

HBV SURFACE ANTIGEN

► **fima VACC** enhances both CD8, CD4, and antibody responses



Immune response with **fima VACC**

Type of immune response	Fold increase compared to HBV alone	Fold increase compared to HBV + poly(IC)
CD8	110x	9x
CD4	75x	5x
Antibody	33x	9x

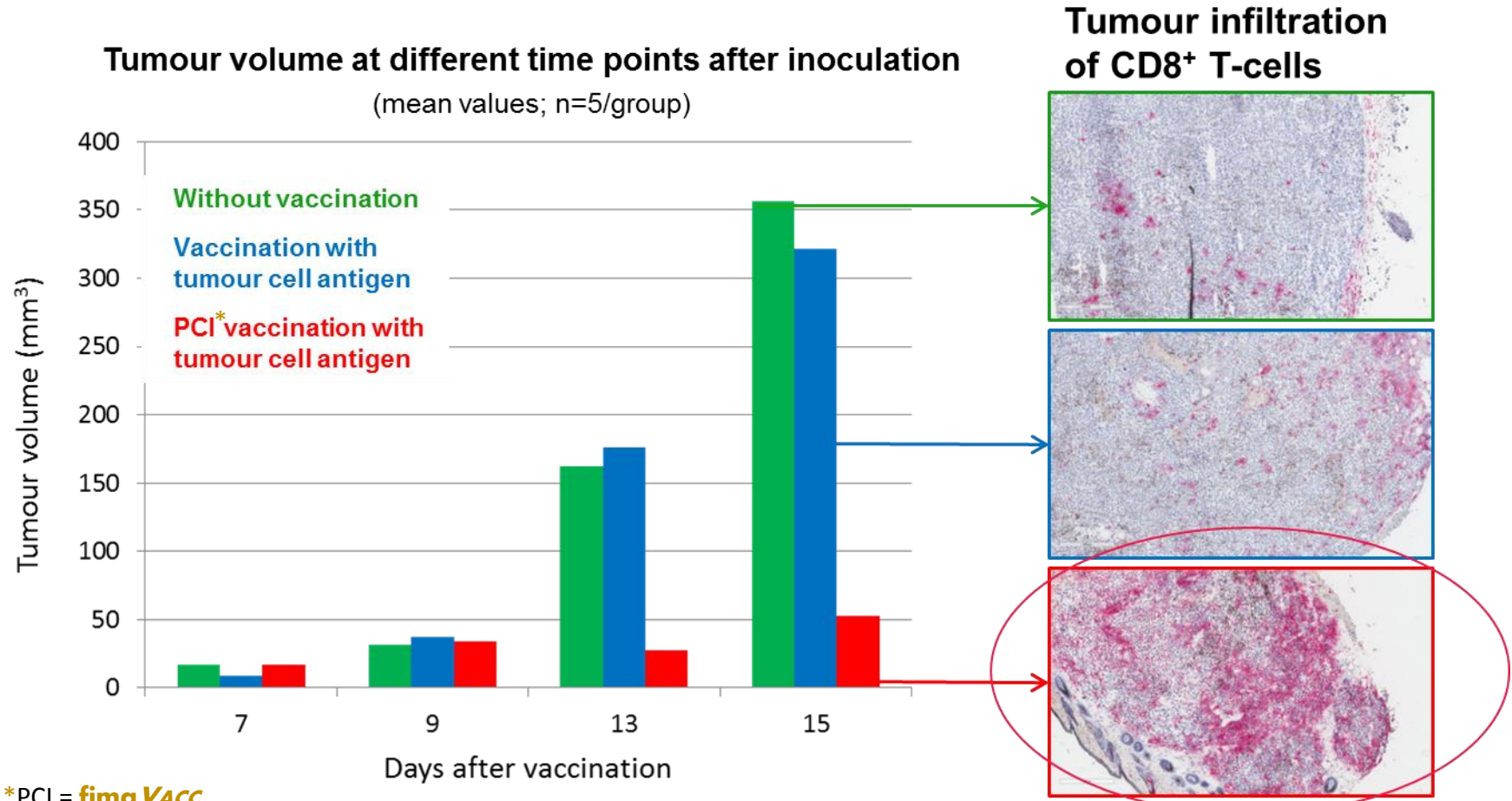
Elicit strong effects in all important aspects of immune response

*PCI = **fima VACC**

THERAPEUTIC VACCINATION IN TUMOUR MODEL

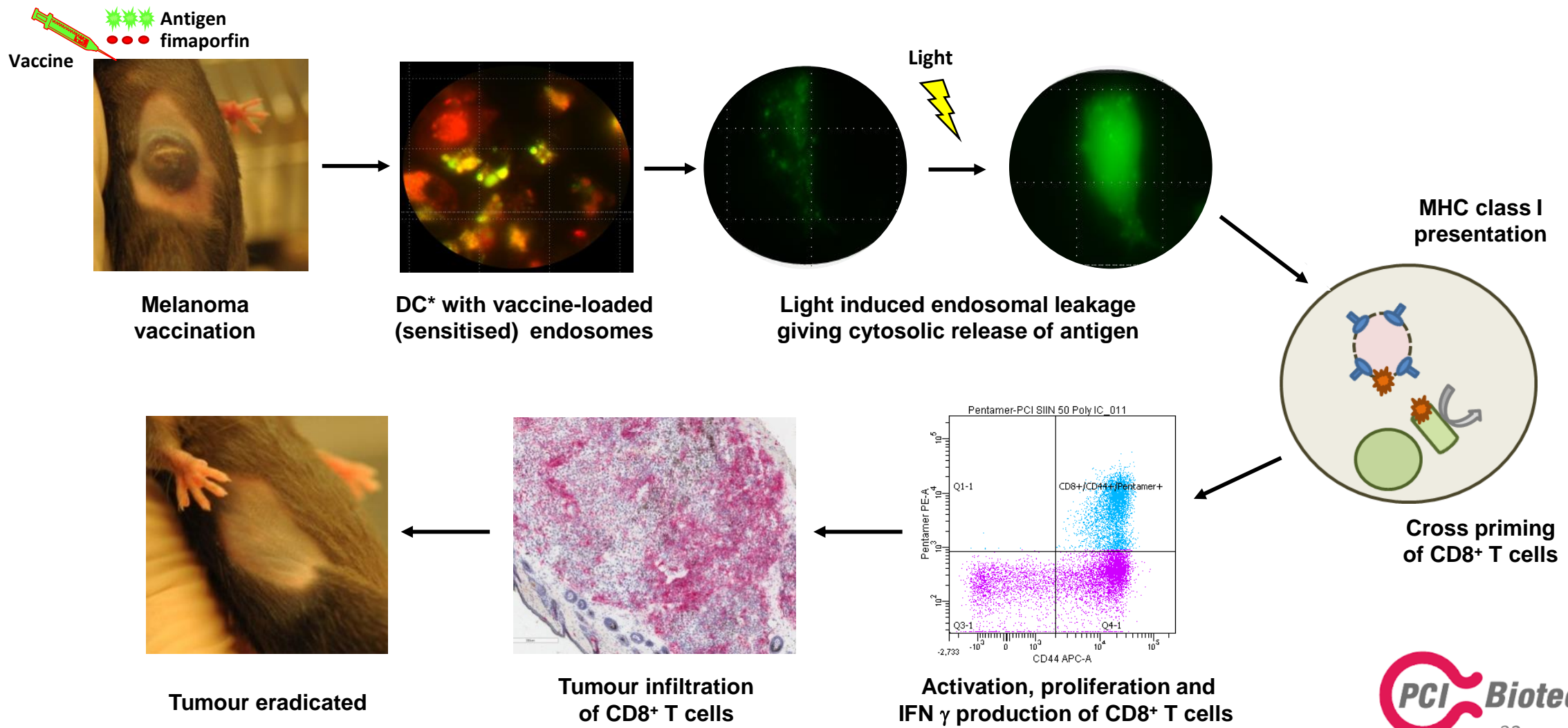
► **fima VACC** induces cytotoxic T-cells that infiltrate tumours

Therapeutic **fima VACC** vaccination with OVA in animal tumour model (B16-OVA melanoma/OT-1)



THE fima VACC TECHNOLOGY IN SUMMARY

► Light-induced endosomal escape, MHC I presentation, anti-tumour CD8⁺ T-cell responses



* DC: dendritic cell

THE fima VACC OPPORTUNITY

- ▶ Clinical validation targeting a huge market with limited investments
-

An Open-Label Phase I/Proof of Principle, Dose escalation Study to Assess Safety, Tolerability and Immune Response of Fimaporfin-induced Photochemical Internalisation (PCI) of Antigen/Adjuvant in Healthy Subjects

- ▶ **Improving immunogenicity of vaccines is a main priority in the immunotherapy industry**
- ▶ **Potential for quick clinical validation of concept with substantial upside at limited cost**
 - Open-label, antigen-adjuvant controlled study in up to 80 subjects
 - Initiated 3Q 2016 and expected completion 1H 2017
 - Dose escalation of light and fimaporfin, and investigating optimal timing of light application
 - Main objective is to determine safety, tolerability and vaccine induced immune responses
- ▶ **Establishing fima VACC as a clinical asset is a major milestone towards commercialisation**

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NUCLEIC ACID THERAPEUTICS

- ▶ A treatment modality with huge potential
-

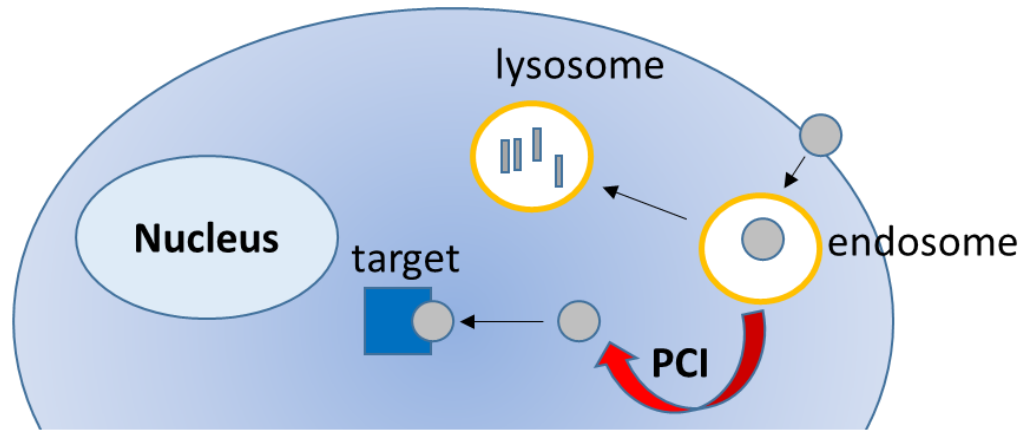


- ▶ **fimaNAC** may provide a delivery solution for many nucleic acid therapy applications
- ▶ Opportunistic collaborative approach
- ▶ Aim is to out-license the technology on non-/semi-exclusive basis

PCI TECHNOLOGY

► **fimaNAC** – mode of action

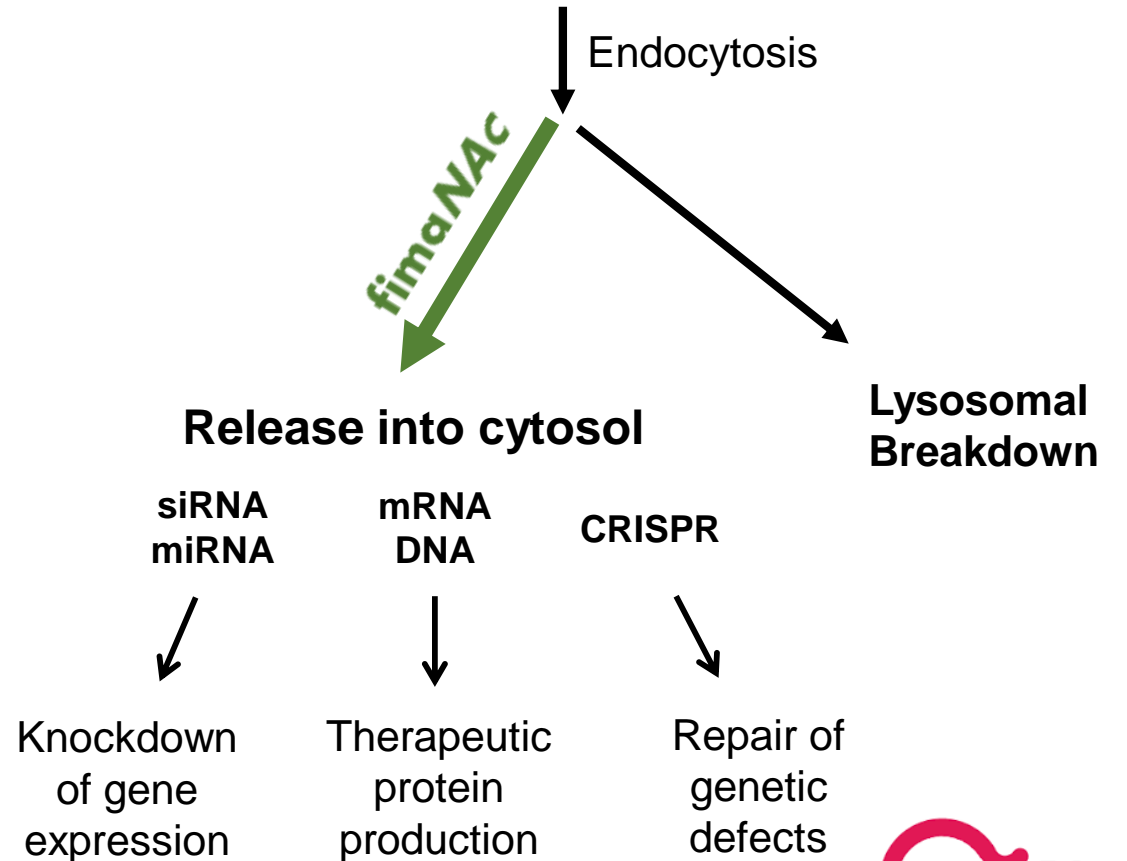
TARGET CELL



● nucleic acid therapeutic

Nucleic acid therapeutics need to enter into the cell cytosol to exert their therapeutic effect. Being quite large molecules, they cannot readily pass the cell membrane, but are taken up by endocytosis. Treatment of target cells with **fimaNAC** enable release of nucleic acid therapeutics that are trapped in endosomes, allowing them to exert their effect.

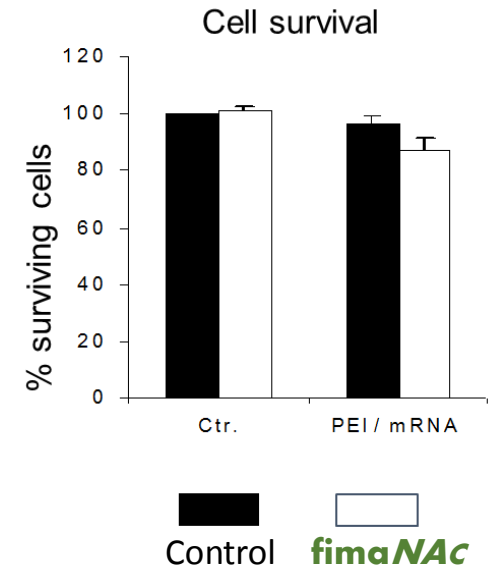
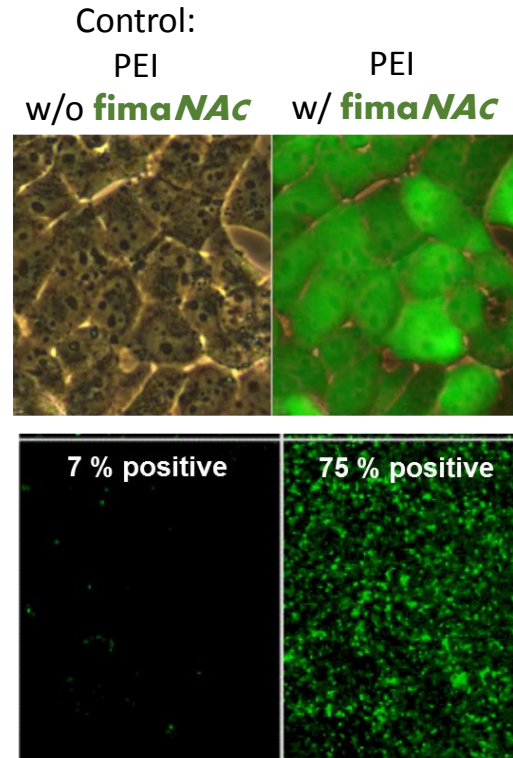
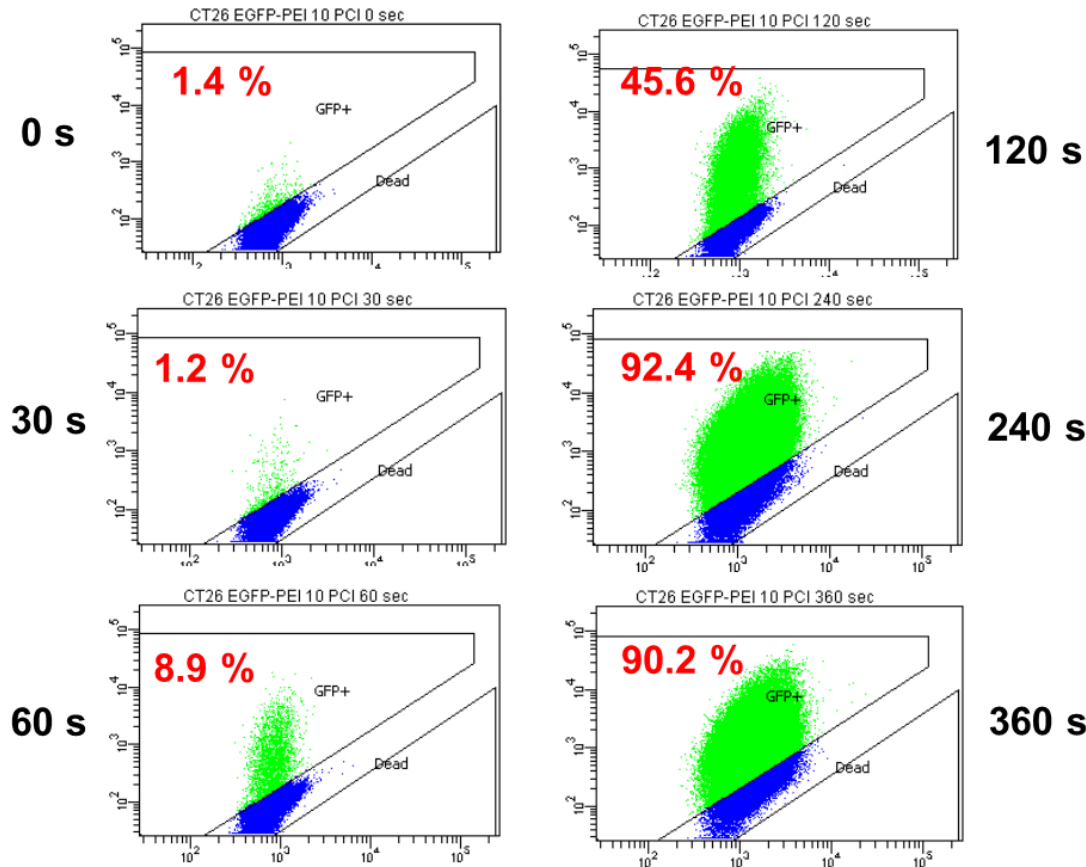
Nucleic Acid Therapeutics



ENHANCING MRNA DELIVERY

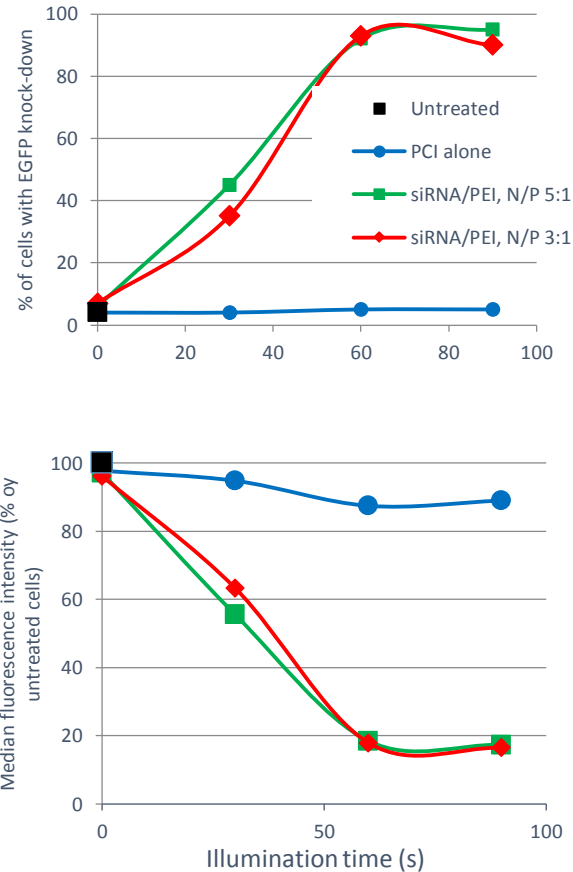
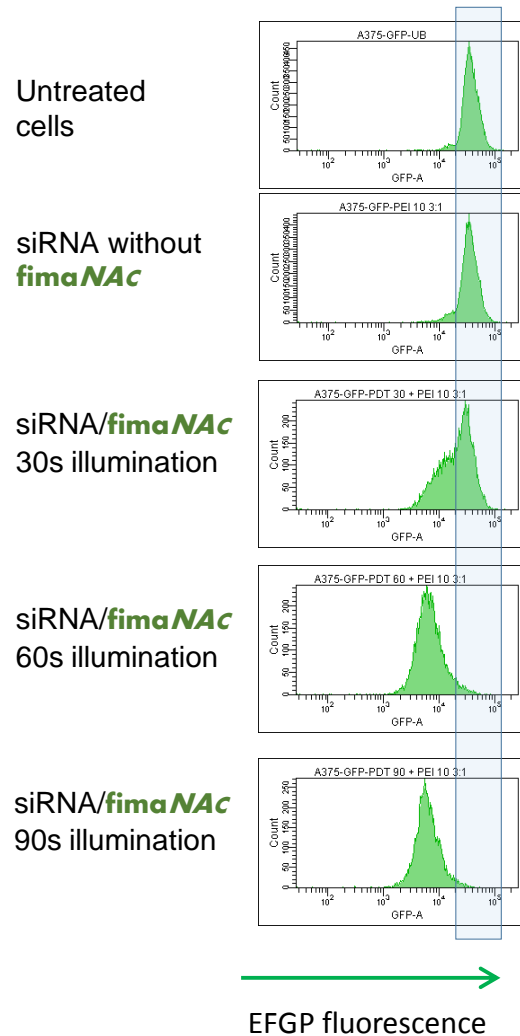
► Strongly increased GFP synthesis with increasing light doses

fimaNAC with polyethylenimine (PEI) vehicle



SIRNA THERAPEUTICS DELIVERY WITH **fimaNAC**

► Enhancing gene silencing by siRNA-PEI complex (A375-EGFP cells)



► **fimaNAC** induces target gene knock-down in almost 100% of the cells, while siRNA-PEI alone has almost no effect

► >80% knock-down of EGFP protein levels 3 days after treatment.

► Probably not far from 100% mRNA knock-down efficiency, EGFP protein half-life > 24 hours

100 nM siRNA, PEI 10 000 (branched), ON incubation with fimaporfin + siRNA

VERSATILITY OF fimaNAc

► Delivery of many types of nucleic acid with many different vehicles *in vitro*

- **Main bottleneck in the field is delivery**
- **fimaNAc** can deliver many types nucleic acids
- Enhancement by **fimaNAc** is best under conditions favourable for vehicle safety
 - Low ratio of vehicle to nucleic acid
 - Low concentration of vehicle/nucleic acid complex
- Especially advantageous *in vivo*
 - Difficult to achieve a high concentration of vehicle/nucleic acid complex in target cells
 - Toxicity may limit the amount of vehicle used

Nucleic acids successfully delivered by fimaNAc

Type of nucleic acid	Delivery vehicle
Plasmids	PEI, cationic peptides, cationic lipids, polylysine ++ Targeting to EGF-R, transferrin-R
siRNA	PEI, cationic peptides, dendrimers, lipofectamine, DOTAP, nanogels, chitosan ++
PNA (peptide nucleic acids)	None, cationic amino acids attached
mRNA	PEI, Protamine
Adenoviral vectors	None, cationic polymers
AAV vector	None










Opportunistic approach – pursuing collaboration and partnering opportunities with major players at minimal internal resources

AGENDA

- ▶ Background
- ▶ PCI Biotech's three programmes
 - **fima** *CHEM*
 - **fima** *VACC*
 - **fima** *NAC*
- ▶ **Status, strategy going forward and financing need**

DEVELOPMENT PIPELINE

► Unlocking the true potential of innovative medicines

Programme	Therapeutic agents	Preclinical	Phase I	Phase II	Status
 fima <i>CHEM</i>	 <i>Chemotherapeutics</i>				Phase I in the orphan indication bile duct cancer completed with promising early signs of efficacy
 fima <i>VACC</i>	 <i>Therapeutic cancer vaccines</i>				Phase I study ongoing One active R&D collaboration
 fima <i>NAC</i>	 <i>Nucleic acid therapeutics</i>				Three active R&D collaborations

An oncology focused company with three well differentiated assets

CURRENT STATUS AND STRATEGY

► Strategic priorities for the three programmes

Programme	Status	Strategy	
fima <i>CHEM</i>	<ul style="list-style-type: none"> Bile duct cancer Phase I study completed with promising early signs of efficacy Orphan drug designation in EU; US in process 	<ul style="list-style-type: none"> Regulatory interactions with EU and US authorities on requirements for market approval (1H 2017) Results have furnished increased external interest, which will be assessed in relation to various financing and partnering alternatives 	Seek regulatory clarity and assess development alternatives
fima <i>VACC</i>	<ul style="list-style-type: none"> Comprehensive and convincing pre-clinical data set - clinical validation initiated Broad and long-lasting patent estate Active research collaboration with commercial entity 	<ul style="list-style-type: none"> Expedite clinical validation with potential to significantly increase asset value (1H 2017) Continued focus on partnering and explore internal product development 	Establish clinical asset
fima <i>NAC</i>	<ul style="list-style-type: none"> 3 active research collaborations with key players 	<ul style="list-style-type: none"> Establish further research collaborations and convert to licensing deals 	Pursue out-licensing opportunities

FINANCING NEED

► Estimated needs – 2016 covered by existing funds

Uses per programme 2017 (NOK million)					
	fimaCHEM	fimaVACC	fimaNAC	Other corporate operations	Total
2017	6-8	26-32	2-4	6	40-50*

fimaCHEM – activities to settle development strategy and prepare for the Phase II part of the bile duct cancer study

fimaVACC – completion of the Phase I study, partnering activities and exploring opportunities to create internal pipeline

fimaNAC – continued opportunistic strategy, with focus on business development activities and alliance management

► Capital requirements 2017 will be covered by new equity, but may also include milestone payments from potential out-licensing

* Including estimated mNOK 4 in public grants for 2017, and subject to foreign exchange rate risk. Transaction costs not included.

SHAREHOLDERS AND PAST SHARE ISSUES

# Name	No. of shares	%
1 FONDSAVANSE AS	2 149 138	14,42
2 PHOTOCURE ASA	1 483 339	9,96
3 RADIUMHOSPITALET FORSKNINGSSTIFTELSE	1 159 853	7,78
4 MP PENSJON PK	916 531	6,15
5 VICAMA AS	743 288	4,99
6 GRESSLIEN ODD ROAR	320 000	2,15
7 MYNA AS	300 000	2,01
8 SYVERTSEN SVEIN ERIK	258 050	1,73
9 LGJ INVEST AS	250 487	1,68
10 VANGUARD INVEST AS	247 101	1,66
11 NORDNET LIVSFORSIKRING	212 733	1,43
12 BAKKER DIRK THEODOOR	200 100	1,34
13 NETFONDS LIVSFORSIKRING	180 090	1,21
14 NORDNET BANK AB	168 806	1,13
15 ENZIAN AS	150 000	1,01
16 RUL AS	144 918	0,97
17 FLORELIUS SVEN EDVIN	137 555	0,92
18 ERRYCO INVEST AS	132 642	0,89
19 HOLST IVAR	120 000	0,81
20 VINTERSTUA AS	100 000	0,67
Sum top 20	9 374 631	62,9%
Total number of shares	14 900 390	100,0%

As of 9 November, 2016

Event	Proceeds mNOK	No of shares
Pre IPO	-	2,416,390
2008 – IPO	60	3,000,000
2010 - Rights Issue	90	2,250,000
2015 - Rights Issue	70	7,000,000
Other	1	234,000
Total	221	14,900,390

In addition the company has received non-dilutive funding through public grants of approximately **mNOK 70** during 2008-2016, covering close to 30% of the R&D expenses.

INVESTMENT HIGHLIGHTS

- ▶ Strong proprietary core technology with a range of promising development opportunities
-

fima *CHEM*

- ▶ High unmet medical need in bile duct cancer
- ▶ Completed Phase I with very promising signs of efficacy
- ▶ Orphan designation may allow for fast go-to-market opportunity
- ▶ Regulatory interactions to determine fastest way to market

fima *VACC*

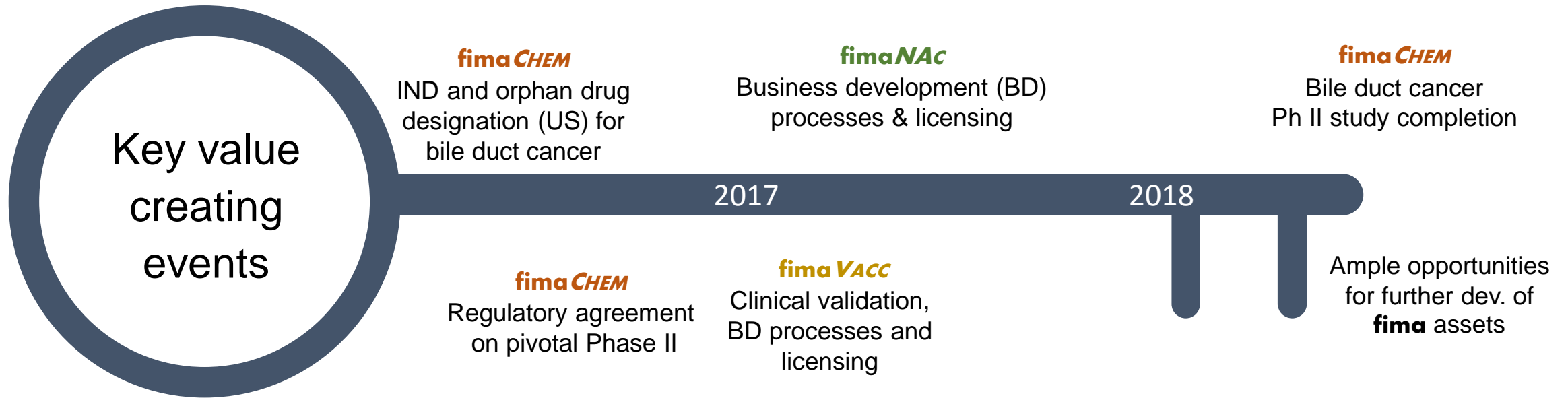
- ▶ Lack of immunogenicity is a key challenge for therapeutic vaccines
- ▶ Pre-clinical data showing substantial boost of immune reaction
- ▶ Recent IP – opportunity to both license and create internal pipeline
- ▶ Fast clinical validation through healthy volunteer study

fima *NAC*

- ▶ Main bottlenecks in the field are delivery related
- ▶ Can improve delivery of several types of nucleic acid therapeutics
- ▶ Opportunistic approach with large potential upside
- ▶ Three research collaborations with key players within the last year

KEY MILESTONES

► Unlocking the true potential of innovative medicine



An oncology focused company with emphasis on immunotherapy

PCI BIOTECH

► Unlocking the potential of innovative medicines

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