Perfusion Tech

- lowering risk of bleeding related surgical complications

CVX Ventures

Perfusion Tech management team

The management team coordinates between our medical team, software team, and the board.
Management: 5 persons
R&D: 10 persons. Board: 5 persons

CMO
Thomas Jonassen, MD
Co-owner of Perfusion Tech
Associate Professor, Univ Cph
15+ years in Biotech- Cofounder of 4 Biotech Companies

CEO
Mads H. A. Madsen, PhD
Founder & co-owner of Perfusion Tech
PhD in physics, expert knowledge in advanced image analysis and fluorescence technology

CFO
Jeppe Øvli Øvlesen, MBA
Co-owner of Perfusion Tech
20+ years of CEO experience. Founding Board Member/Co- founder of more than 15 biotech/MedTech companies with successful past ventures

CSO
Morten A.V. Lund, MD
Founder & co-owner of Perfusion Tech
Clinical research and study design experience

VP Business Development
Pernille Singer
Co-owner of Perfusion Tech
20+ years MedTech leadership experience from larger international MedTech companies

Scientific advisory board

Clinical Advisor
Ismail Gögenur, MD, DMSc
Professor and consultant
Department of Surgery, Zealand University Hospital.. Head of Center for Surgical Science, Region Zealand.

Clinical Advisor
Michael Hasenkam, MD, DMSc
Professor at Department of Clinical Medicine & Department of Thoracic and Cardiovascular Surgery at Aarhus University

Clinical Advisor
Ronald Borra, MD, PhD
Senior Consultant, Professor of Experimental Radiology & Nuclear Medicine & Molecular Imaging at University of Turku (FI) & Groningen (NL)

Perfusion Tech in brief

- MedTech company established in Copenhagen in 2017
- Invented a ground-breaking new image analysis technology for real-time quantification of tissue perfusion during surgery
- Technology has potential to significantly lower bleeding related surgical complications thereby saving time, money and lives
- Solid patent portfolio protects technology platform
- Very lean company owned by the founders
- Highly experienced team with a proven track record
- Currently raising 15 mDKK (10 mDKK in capital + 5 mDKK in loan) for commercialization of 1st generation- and development of 2nd generation software
- Aiming for a total or fractioned exit within 2 years

Technological advancements has taken surgery to new levels however, bleeding related complications continue to be a frequent and critical consequence

Bleeding is a complication of surgery that can lead to substantial morbidity and mortality

- Blood vessels are fragile and often hidden in other tissue
- Up to 50% of surgery time is spent lozalizing blood vessels to avoid tearing
- Bleeding related complications occurs in 1 out of 3 surgeries
- Serious bleeding related complications increases mortality with 20%

Bleeding related complications pose a significant global health burden

Surgical volume is large and fast growing in all economic environments

- Bleeding complications occur in ~30% of surgeries[2]
- Prolongs hospitalization with ~3.4 days[2] after serious bleeding related complications
- Increases hospitalization cost with ~30%[2] equaling ~€2.000 per patient

Annual # of surgeries globally[1]	313 million
Annual # of surgeries with bleeding related complications	94 million
Additional cost per surgery	€ 2.000
	188 billion

Note 1 – Weiser et al 2012. Lancet.
Note 2 – Ye et al 2013. BMC Health Services Research.

Avoiding bleeding related surgical complications - a market opportunity

"Today we have NO way of assessing the perfusion in the tissues during the surgical procedure. Such a method would be of immense help in guiding our surgical procedures"

"A system providing objective quantification of perfusion during surgery is expected to become standard of care within 5 years"

"Ease of use and integration into existing equipment is paramount."

"Such a system would be of highest interest and used in "all" or "almost all" procedures where knowledge of bowel perfusion could be of interest, not limited to anastomotic surgery"

Perfusion Tech's AI[1] technology can lower risk of bleeding related complications

Tissue perfusion is quantified & blood vessels visualized from existing surgical images

- Stand-alone software applies advanced image analysis to existing surgical video feeds
- Injection of small doses of fluorescent dye (ICG) creates signal changes invisible to the surgeon, but detectable by Perfusion Tech's AI[1] software
- Blood vessels and perfusion areas are shown on the surgeon's normal white light images
- Superior data tracking algorithm eliminates tissue movements during measurements

CE

1st generation SW

- Intrasurgical perfusion assessment in selected areas

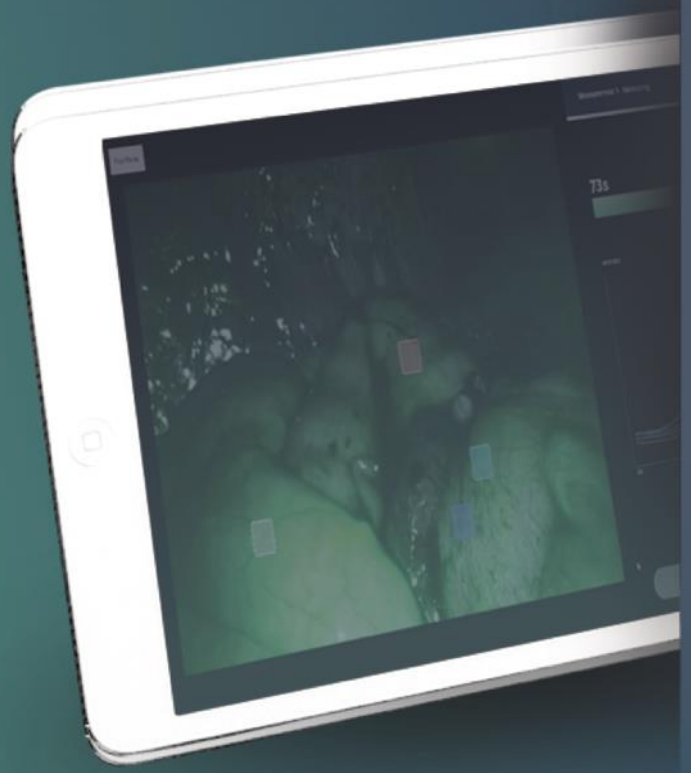
2nd generation SW

- Blood vessel mapping
- Surveillance of blood supply

Note 1 – Artificial Intelligence

Perfusion tech

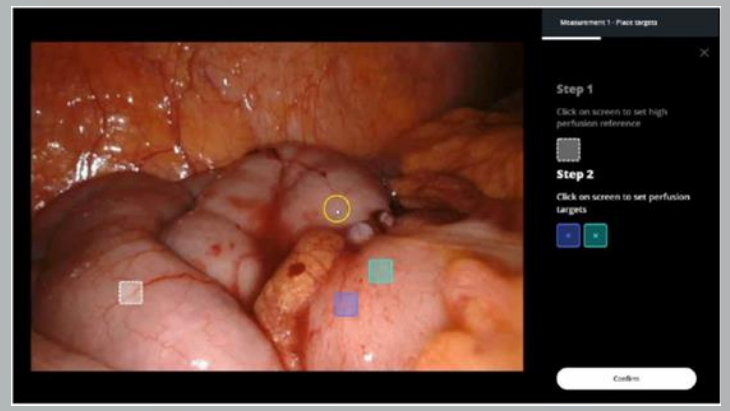
PerfusionWorks 1st generation software for intrasurgical perfusion assessment available within EU



- Stand alone product for real-time quantification of tissue perfusion in areas defined by the surgeon
- Assists the surgeon in making informed decisions lowering risk of personal errors
- Easy-to-use product developed with leading surgeons to fit existing workflows
- Indicated for use within a broad range of surgical specialities
- Compatible with existing surgical image systems[1]
- Product CE marked

Note 1 – Tested with systems from Intuitive Surgical, Olympus and Karl Storz

How PerfusionWorks software works



1. Surgeon selects regions of interest

2. ICG is injected and measurement begins

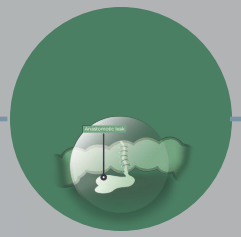
3. Tissue perfusion is quantified and presented immediately

Starting within colorectal cancer, we have moved into other surgical areas…

2017

Filing of patent application #1
Real-time perfusion quantification at key timepoints

2017-2019



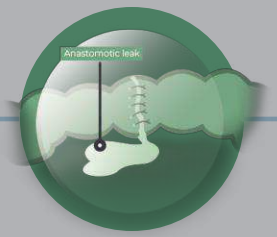
Software development

Feasibility study
80+ patients, 2 DK sites

2020

Indicated for use within colorectal cancer surgery

2019–2021

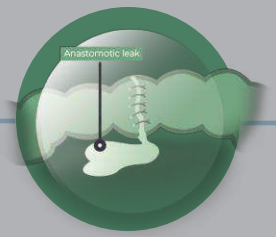


Clinical study within colorectal cancer
100 patients, 2 DK sites:
"Perfusion metrics vs. physiology in right-sided GI surgery"

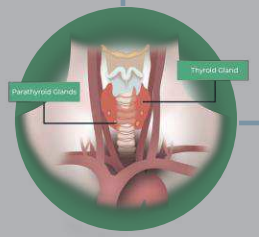
2021

Extension of indication for use

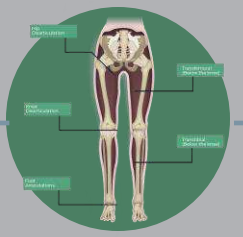
2021-2022



Multi-center study colorectal cancer
250 patients, 4-6 sites:
"Perfusion quantification to reduce anastomotic complications"



Study - Thyroid surgery
Univ. Hospital Groningen, NL

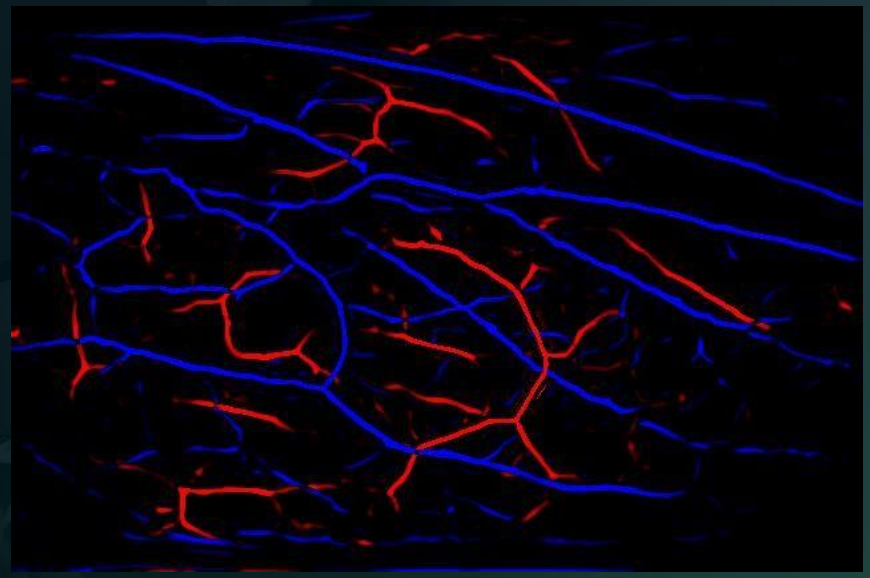


Study - Amputation surgery
Univ. Hospital Groningen, NL

Our 2nd generation software takes perfusion assessment to the next level opening up a whole new area of ICG-enhanced surgical vision…

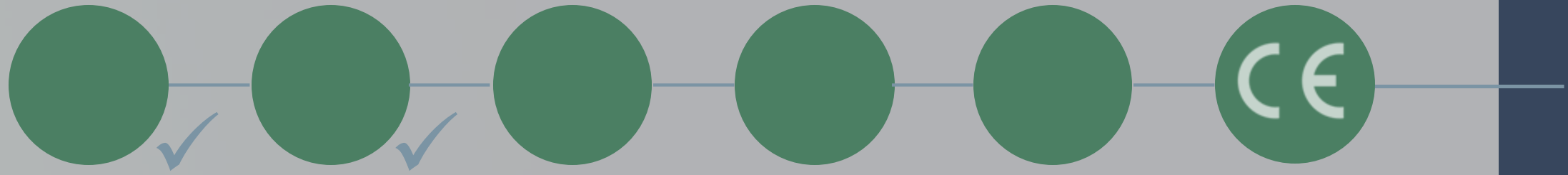
Makes the invisible visible to the surgeon

- Repeated ICG-microdoses creates oscillating fluorescent signals invisible to the surgeon, but detectable by Perfusion Tech's software
- Enables real-time visualization of blood vessels in challenging surgery (obesity, reoperations etc.)
- Enables continuous monitoring of tissue perfusion and alarms surgeon in case of low perfusion
- Market introduction by 2023



Perfusion Tech human blood vessel map
red = arteries, blue = veins

Our 2nd generation software is in development…



2018+2019

Patent #2 & #3:
"System and method for automatic perfusion measurement"
&
"System and method for identifying blood vessels during fluorescence imaging"

Q3 2021

Animal test

Q2-Q4 2021

Software developmet

Feasibility study
30+ patients
at DK & NL sites

Q1 2022

Final software

Q1-Q3 2022

Clinical study
50+ patients
at DK & NL sites

Surgical specialities in focus:
- Heart-surgery, re-operations
- Vascular surgery

Q4 2022

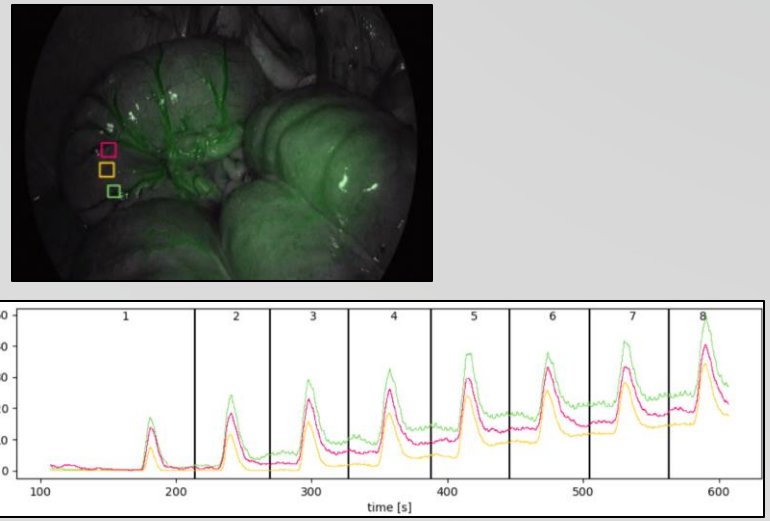
PerfusionWorks 2.0

Preliminary results from animal study

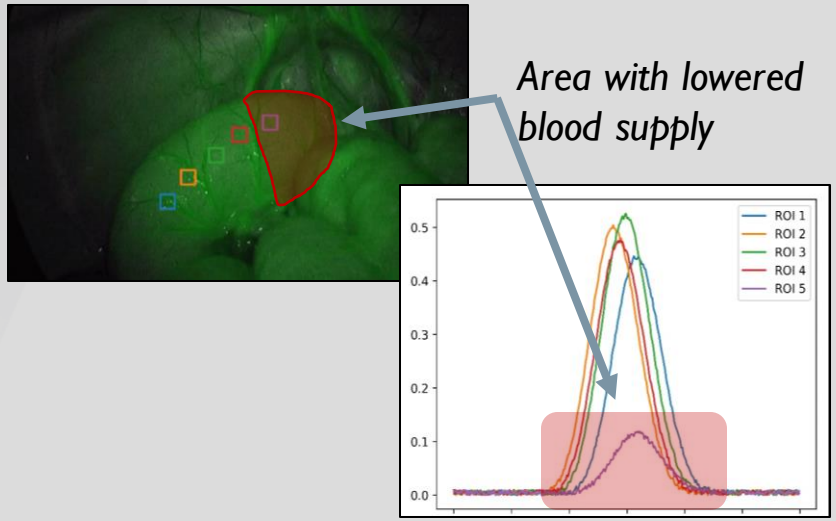
- Status on tissue perfusion provided every minute

Animal study

- Feasibility study in 12 pigs & 4 organs
- Hardware test
- Generation of data for software development



Baseline: Normal perfusion in all areas

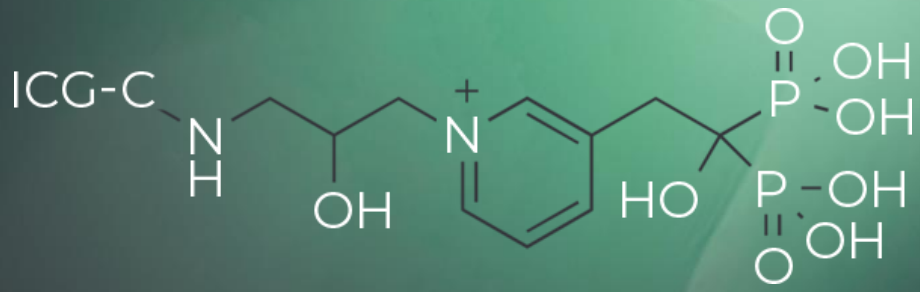


Difference between normal and lowered blood supply

The International Society for Fluorescence Guided Surgery Announces Publication of Consensus on Fluorescence Guided Surgeries (FGS) in Annals of Surgery

November 19, 2020; Fort Lauderdale, FL, USA: The International Society for Fluorescence Guided Surgery (ISFGS), the leading organization dedicated to the global advancement of fluorescence-guided surgery, is pleased to announce the publication in Annals of Surgery, “Consensus Conference Statement on the general use of near-infrared fluorescence imaging and indocyanine green guided surgery: Results of a modified Delphi study”.

“This publication confirms that fluorescence-guided surgeries will dramatically alter the way surgeries will be performed in future”, said lead author Raul J. Rosenthal MD FACS, Clinical Professor of Surgery at the Lerner College of Medicine at CWRU and Department Chairman of General Surgery at Cleveland Clinic in Weston, Florida. “We are delighted that this eminent group of surgeons, came to the consensus that near-infrared-fluorescence-guided surgery is effective and safe across a broad variety of clinical settings and results in safer surgeries with improved outcomes for the patient ”, Dr. Fernando Dip, President of ISFGS continued.



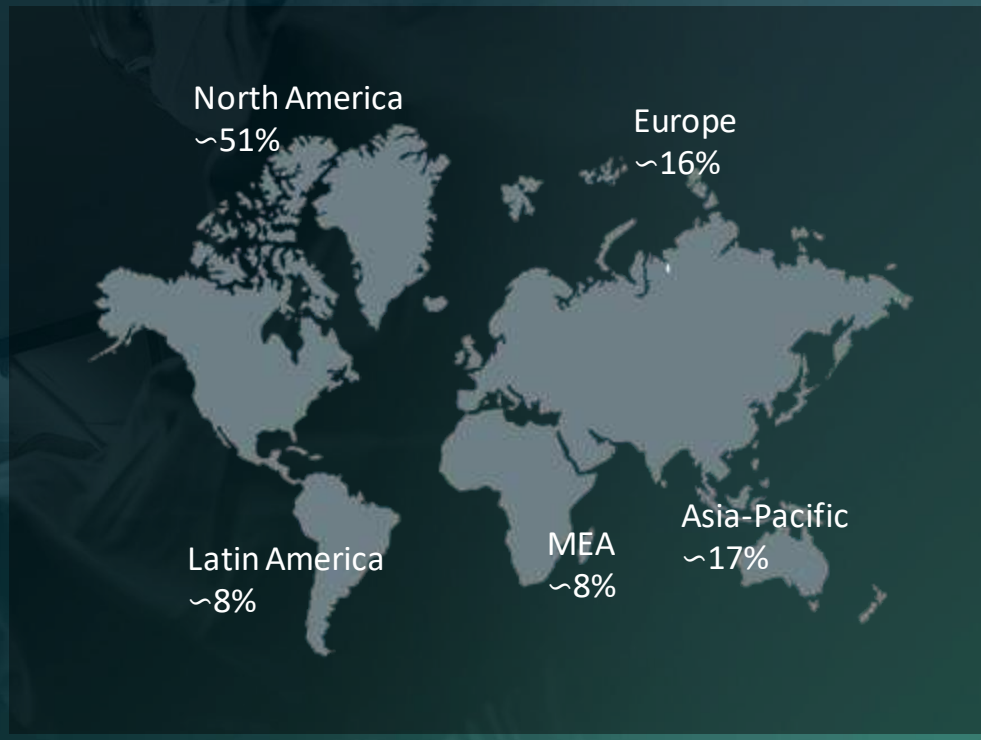
Solid IP portfolio protects our technology platform

- Broad coverage of technology platform
- Key patents issued in EU and US
- > 15 years of patent life

#1	#2	#3	#4
U.S.Pat. 10,271,750	PCT/EP2019/065648, USPTO 16/738,078	EP 19218169.1	EP 21181561.8
"System and method for assessing perfusion in an anatomical structure".	*"System and method for automatic perfusion measurement"*	*"System and method for identifying blood vessels during fluorescence imaging"*	*"System and method for identifying an abnormal perfusion pattern"*
PerfusionWorks 1.0 algoritm	Automated perfusion surveillance and microdosing	Real-time blood vessel mapping	Detection of abnormal tissue
Priority: Dec 2016	Priority: Jun 2018	Priority: Dec 2019	Priority: Jun 2021
Allowed: April 2019	Allowed: Nov 2020	NA	NA

Perfusion Tech's technology taps into the highly attractive and fast growing surgical robots market

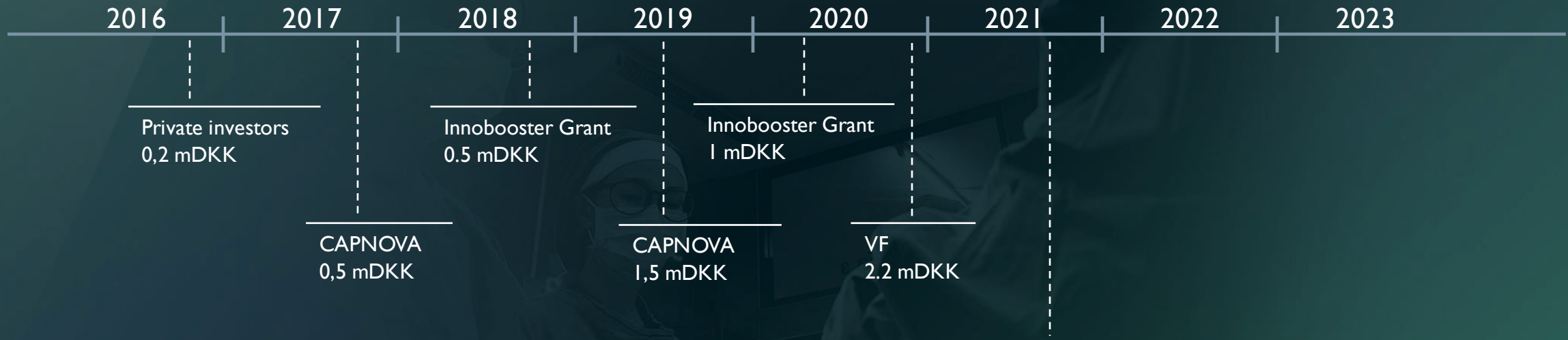
- Market projected to reach USD 14.4 billion by 2026 from USD 6.4 billion in 2021 at a CAGR of 17.6%
- Paradigm shift within surgical robots driven by technological advancements within 3D imaging, data recorders and data analytics systems
- Growth drivers of the surgical robots market are…
  - increasing demand for minimally invasive surgeries ensuring greater accuracy, repeatability, control and efficiency
  - advanced visualization capabilities that provide surgeons with superior view of the operating area



Comparison of Perfusion Tech's technology with key competitors

Parameter	Perfusion tech	Intuitive Surgical	Stryker	Medtronic	Olympus
Show blood supply in a discrete area	✓	✓	✓	✓	✓
Measure blood supply in a discrete area	✓	(✓)	✗	(✓)	✗
Visualise blood vessels in all areas	✓	✗	✗	✗	✗
Measure blood supply in all areas	✓	✗	✗	✗	✗
Alarm in case blood supply is absent	✓	✗	✗	✗	✗

6 mDKK of investment capital has been onboarded



Today

- 12 employees
- Copenhagen office

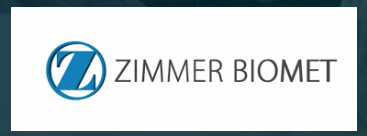
Goals for coming period – use of investment proceeds

Activities	2021	2022	2023	2024…
PerfusionWorks sales promoting activities		1.5 mDKK		
Progress PerfusionWorks clinical multicenter study QUANTICO within colorectal cancer		3.5 mDKK		
Clinically document PerfusionWorks within focus indications (Thyroid-, and Amputation surgery)		2.0 mDKK		
Finalize software integration with PACS and DICOM storage and sharing platforms		1.0 mDKK	First commercial partnership established	
Progress 2nd generation software development for blood vessel mapping & perfusion surveillance		2.0 mDKK		
Clinically document 2nd generation software within Abdominal surgery in obesity and Heart re-operations		5 mDKK		
Cost	1 mDKK	7 mDKK	7 mDKK	

Raise 15 mDKK

Potential takers identified

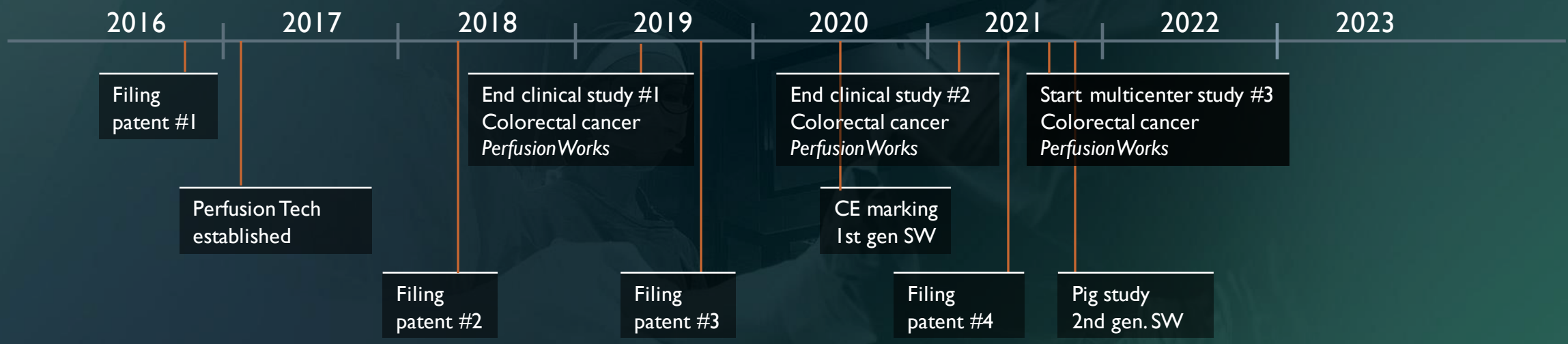
In parallel with own sales activities dialogue is ongoing with top-four players



Investment opportunity

- Patent protected disruptive image analysis technology platform for intrasurgical perfusion assessment
- Very lean company owned by the founders
- PerfusionWorks first generation software for real-time perfusion quantification within selected areas CE marked
- Market introduction of next generation software for blood vessel mapping and continuous perfusion surveillance by 2023
- Software platform compatible with existing image systems & systems for storage and sharing of surgical images
- Experienced team with proven track record
- 2 years to exit / partnership with first commercialization partner
- Validated potential ~ $130 milllion
- 20X exit opportunity

Thank you


2016
2017
2018
2019
2020
2021
2022
2023
Filing patent #1
Perfusion Tech established
Filing patent #2
End clinical study #1 Colorectal cancer PerfusionWorks
Filing patent #3
End clinical study #2 Colorectal cancer PerfusionWorks
CE marking 1st gen SW
Filing patent #4
Start multicenter study #3 Colorectal cancer PerfusionWorks
Pig study 2nd gen. SW