Company presentation

September 2023

LIFECARE

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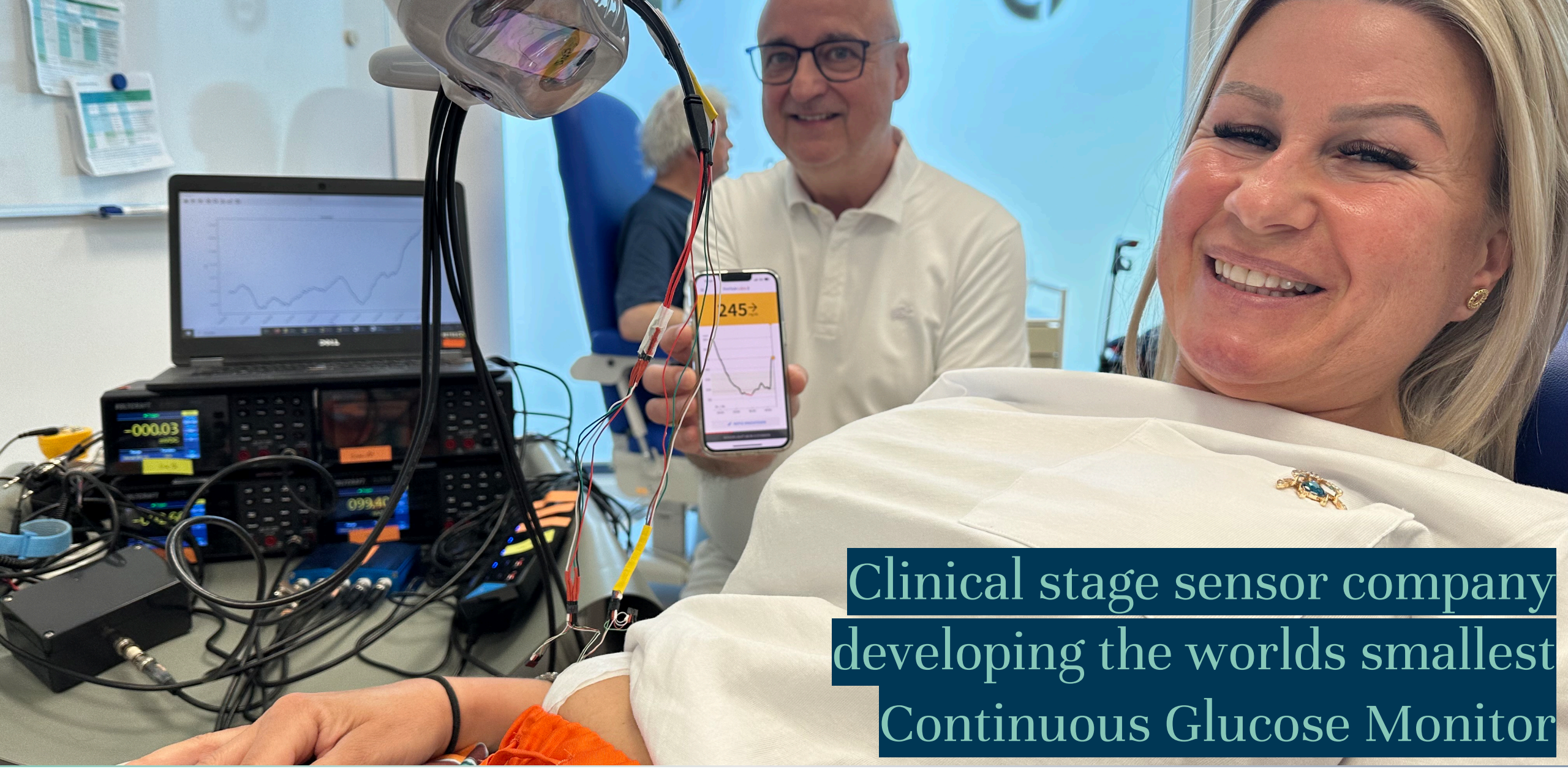


Clinical stage sensor company developing the worlds smallest Continuous Glucose Monitor

Trigger Events

	Q3 2023	Q4 2023	Q1 2024	Q2 2024
Production and market launch	Automation software for production	Place order automated production equipment	Automated pilot production	- Automated production - Product launch for veterinary market
Studies	Approval for LFC-SEN-002	- Start LFC-SEN-002 - Preparations for LFC-SEN-003	- Conclude LFC-SEN-002 - File for approval LFC-SEN-003	Start LFC-SEN-003
Regulatory compliance	ISO 13485 preparations	ISO 13485 audit	- Identify test site USA - Pre-IND meeting FDA	Prepare US study protocol in alignment with FDA

Product development agreement with Sanofi

Sanofi-Avenis Group sponsor the development program for miniaturizing the Sencell Glucose sensor with funding of EUR 290.000 based on completion of defined development phases

The Development Agreement is **based on a robust evaluation and due diligence process** from Sanofi scientists and business department, including a detailed review of the product development plan and the commercial aspects of Lifecare's Sencell Glucose relative to Sanofi's product portfolio and the competitive landscape

Sanofi is entitled to a "first right of refusal" to negotiate an exclusive and worldwide distribution license of Lifecare technology and IP for glucose monitoring.

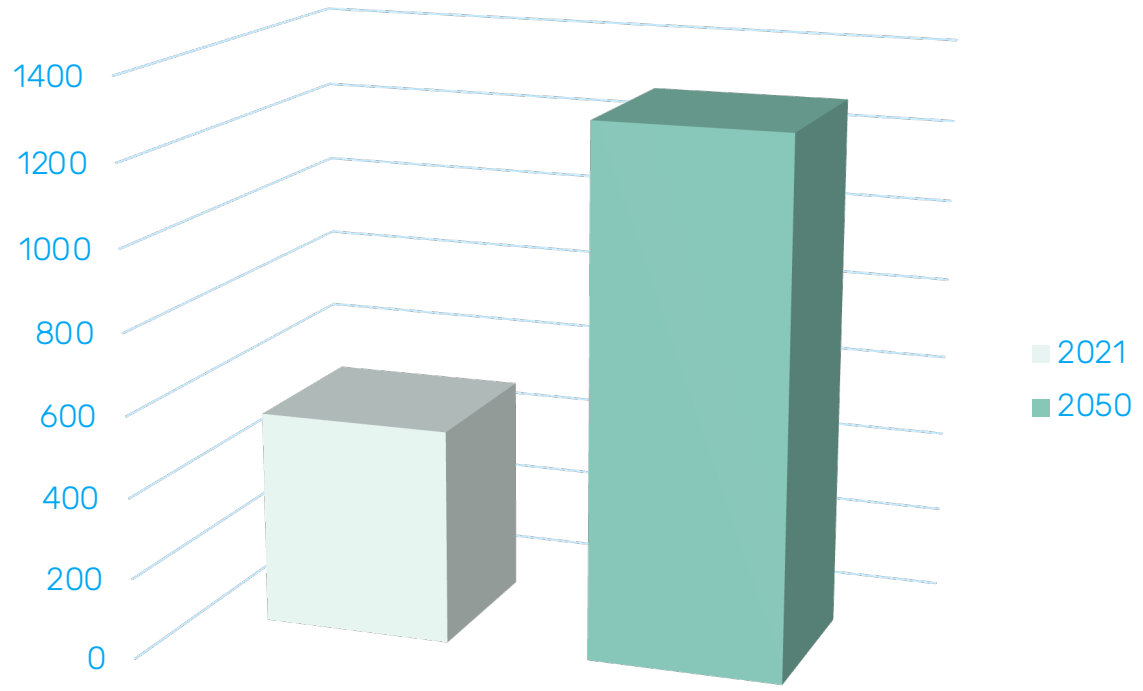
Diabetes prevalence

1 in 10

adults[1] worldwide live with diabetes (2021 : 485[2] - 537[3] million people)

Projected to reach 1,3 billion people in 2050 [2]

Million people (all ages) living with diabetes, worldwide [2]

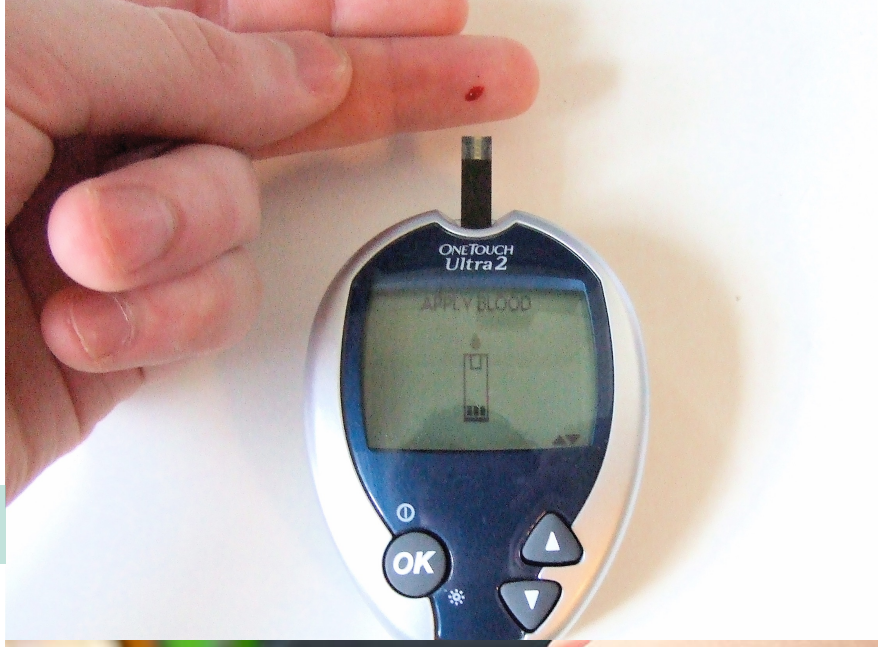


[1] Age 20 -79, [2] Lancet June 2023, [3] IDF Diabetes Atlas 2021

Patient Glucose Monitoring

Standard treatment

Blood Glucose Meter



State-of-the art treatment

Continuos Glucose Monitor

Sensing principles – Continuous Glucose Monitoring

1 Glucose oxidase

Dexcom (G6 & G7), Medtronic, Abbott (FreeStyle Libre 2 & 3)

Longevity: 7- 14 days
Annual cost: $ 1.500 – 4.000

2 Flourescence

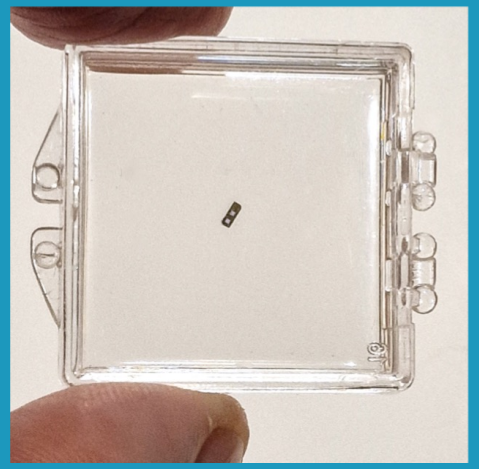
Senseonics (Eversense)

Longevity: 180 days
Annual cost: $ 6.000

3 Osmotic pressure

Lifecare (Sencell)

Longevity: 172 days (in-vitro)
Annual cost: >$ 2.000 (assumption)



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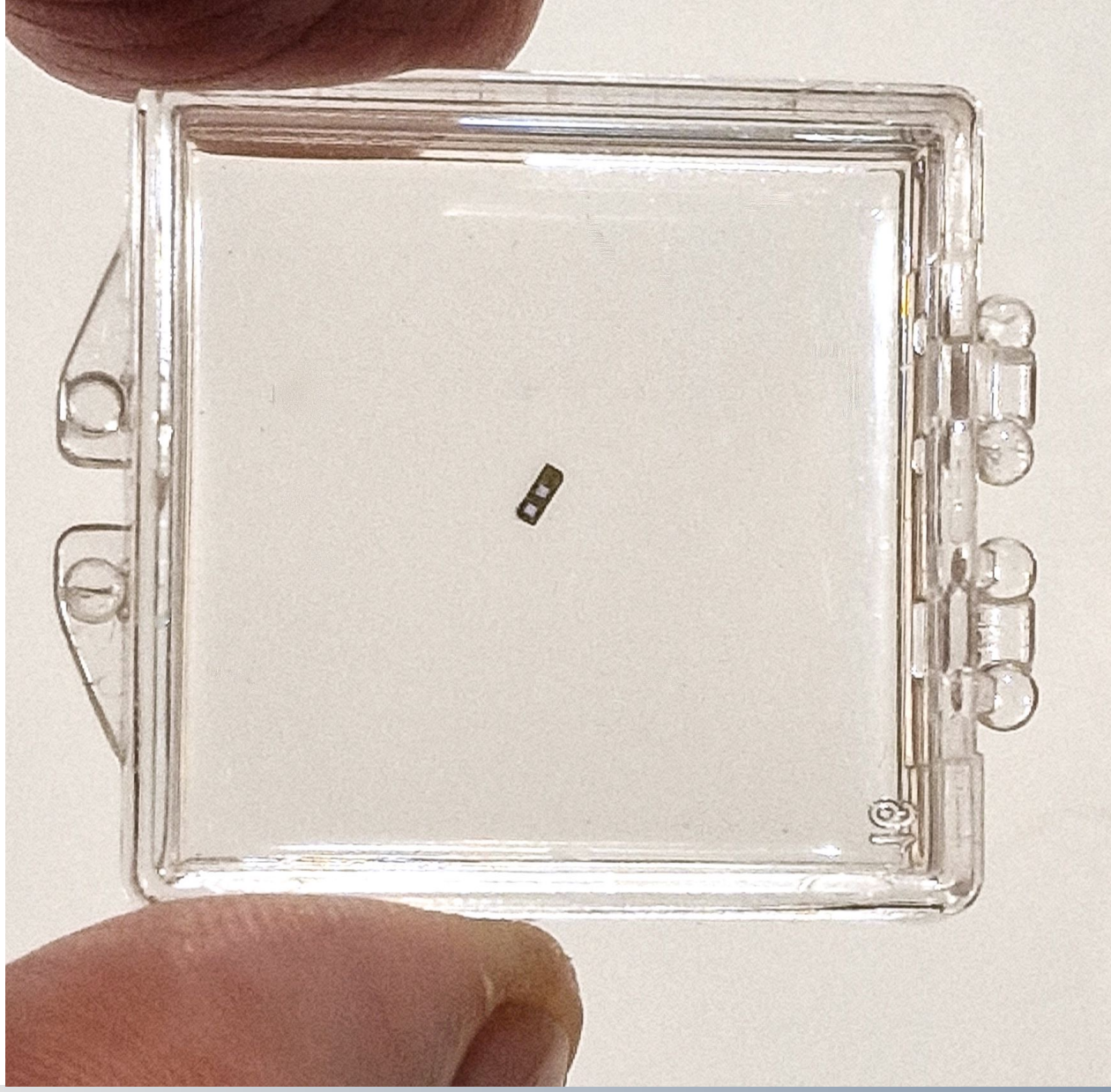
Sencell system

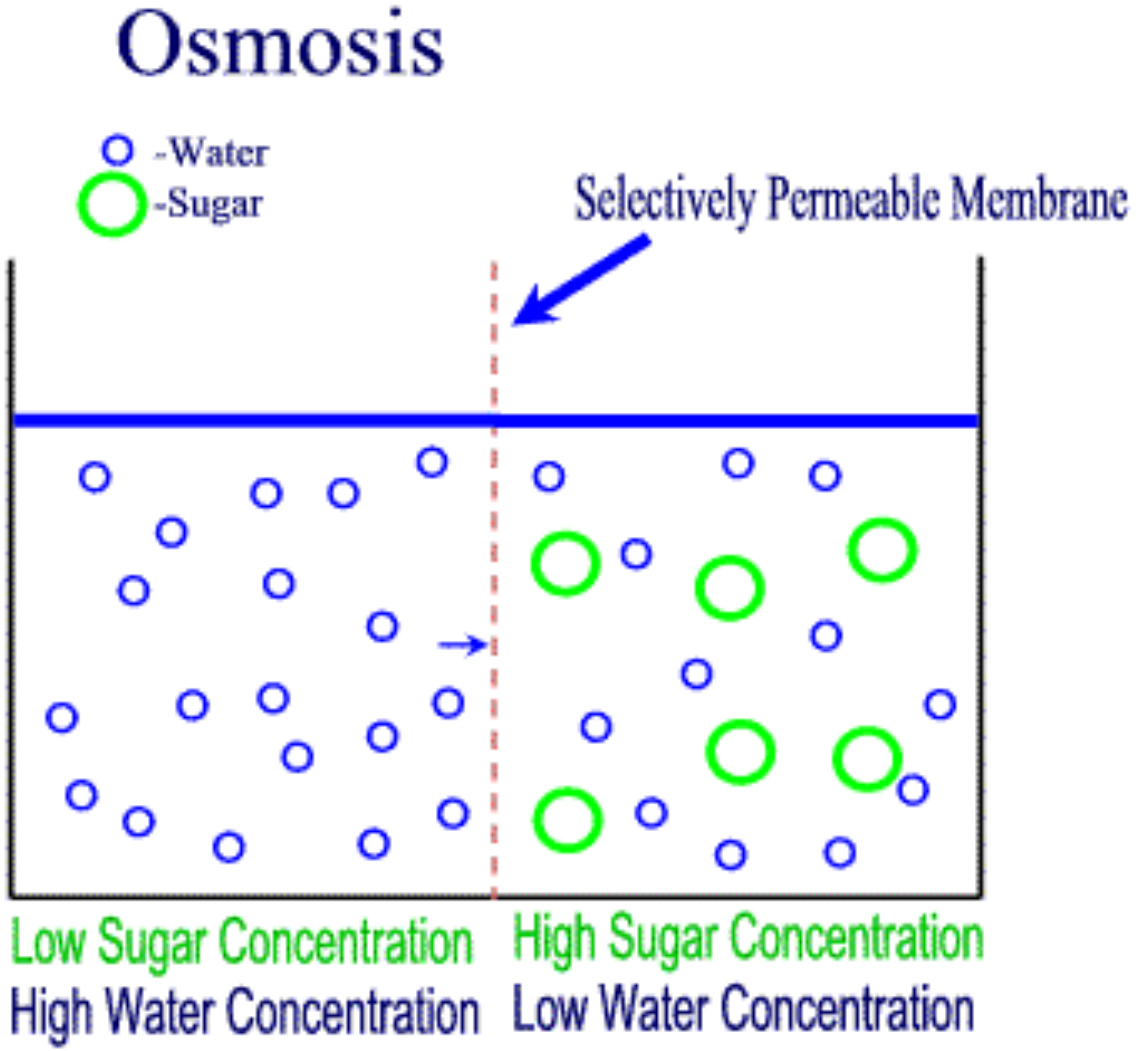
- ✓ Size of a grain of rice
- ✓ Injected under the skin
- ✓ 6 months longevity
- ✓ No calibration needed



1 Sensing principle

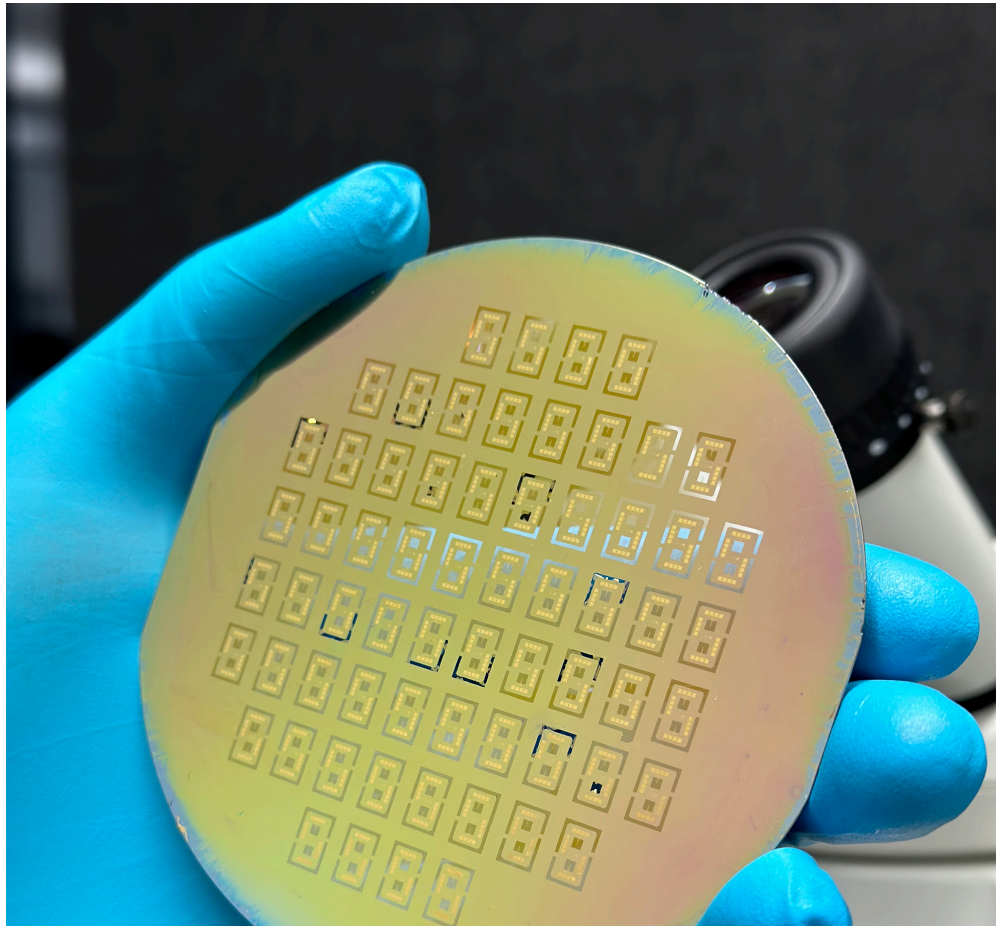
Sensing principle – Osmotic pressure

Movement of liquid from **less concentrated** to the **more concentrated** solution through a semi-permeable membrane.



2 Nanoscale sensor

Nanoscale sensing elements



sensors

MDPI

Communication

Miniaturization of an Osmotic Pressure-Based Glucose Sensor for Continuous Intraperitoneal and Subcutaneous Glucose Monitoring by Means of Nanotechnology

Andreas Pfützner [1,2,3,4,5,*], Barbora Tencer [1], Boris Stamm [2], Mandar Mehta [2], Preeti Sharma [2], Rustam Gilyazev [2], Hendrick Jensch [3], Nicole Thomé [3] and Michael Huth [6]

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Abstract: The Sencell sensor uses glucose-induced changes in an osmotic pressure chamber for continuous glucose measurement. A final device shall have the size of a grain of rice. The size limiting factor is the piezo-resistive pressure transducers inside the core sensor technology (resulting chamber volume: 70 µL. To achieve the necessary miniaturization, these pressure transducers were replaced by small (4000 × 400 × 150 nm^3) nano-granular tunneling resistive (NTR) pressure sensors (chamber volume: 750 nL). For benchmark testing, we filled the miniaturized chamber with bovine serum albumin (BSA, 1 mM) and exposed it repeatedly to distilled water followed by 1 mM BSA solution. Thereafter, we manufactured sensors with glucose testing chemistry (ConcanavalinA/dextran) and investigated sensor performance with dynamic glucose changes between 0 and 300 mg/dL. Evaluation of the miniaturized sensors resulted in reliable pressure changes, both in the BSA benchmark experiment (30–35 mBar) and in the dynamic in vitro continuous glucose test (40–50 mBar). These pressure results were comparable to similar experiments with the previous larger in vitro sensors (30–50 mBar). In conclusion, the NTR pressure sensor technology was successfully employed to reduce the size of the core osmotic pressure chamber by more than 95% without loss in the osmotic pressure signal.

Keywords: continuous glucose monitoring; osmotic pressure; NTR sensor; FEBID; implantable glucose sensor

check for updates

Citation: Pfützner, A.; Tencer, B.; Stamm, B.; Mehta, M.; Sharma, P.; Gilyazev, R.; Jensch, H.; Thomé, N.; Huth, M. Miniaturization of an Osmotic Pressure-Based Glucose Sensor for Continuous Intraperitoneal and Subcutaneous Glucose Monitoring by Means of Nanotechnology. *Sensors* **2023**, *23*, 4541. https://doi.org/10.3390/s23094541

Academic Editor: Andrea Facchinetti

Received: 20 March 2023
Revised: 2 May 2023
Accepted: 3 May 2023

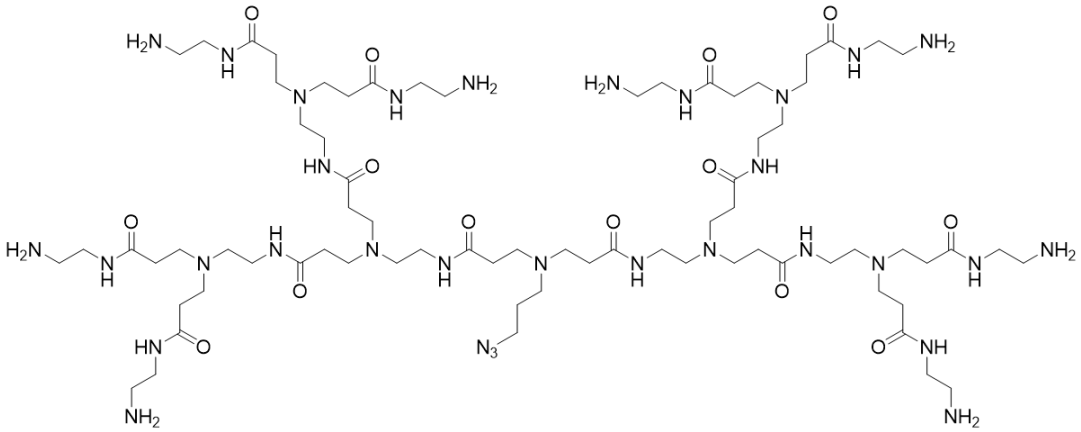
3 Chemistry

Patented chemistry solution

Lifecares patented chemistry solution consists of ConA and Dextrane, forming a dynamic system reactive to glucose - causing increase or decrease of osmotic pressure.

New chemistry under development: modular system for customization to various molecules beyond glucose.

New patent application in progress to be filed in Q3 2023



Clinical status

Study «LFC-SEN-001» – concluded May 2023

presented at American Diabetes Association Scientific Sessions June 23

Purpose:

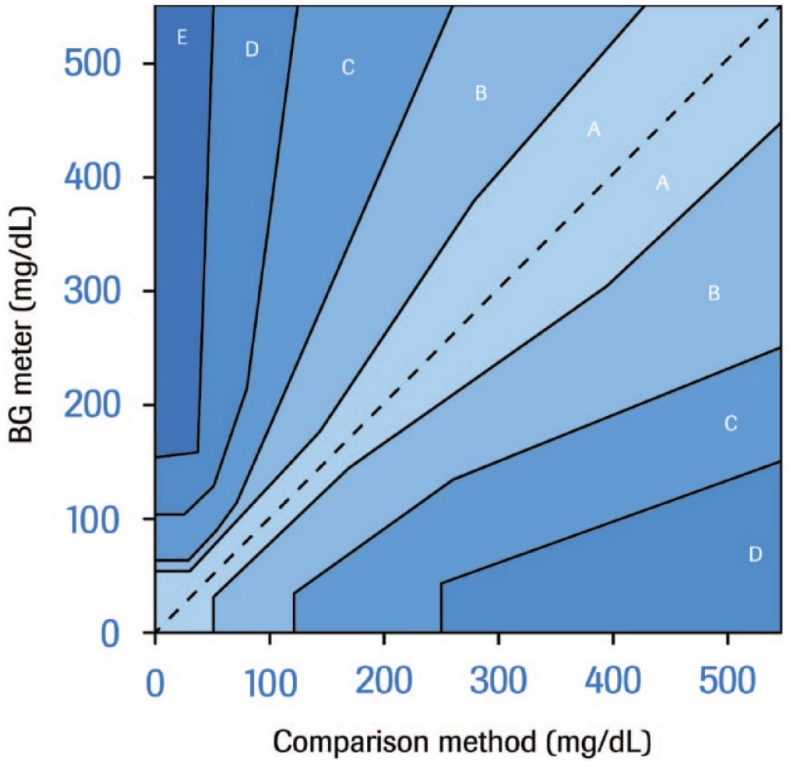
Collect human proof-of-concept performance data for algorithm development during meal experiments and for further device optimization

Conclusion:

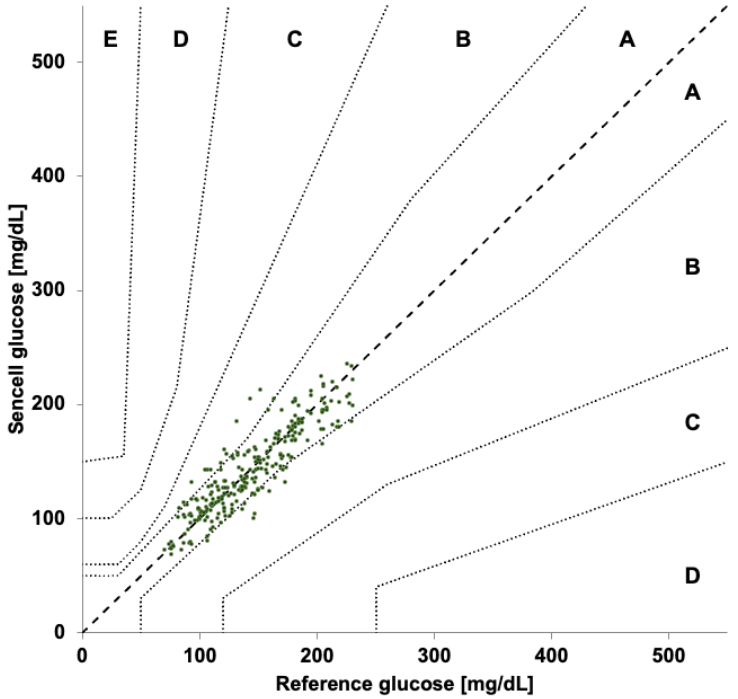
Subcutaneous glucose concentrations was tracked in a manner comparable as the Libre 2 or Dexcom G7 needle sensors.

Clinical accuracy – Consensus error grid (ISO 15197: BG meters)

Results in zone A and B:
regulatory accepted



LFC-SEN-001: Retrospective
consensus error-grid analysis



Zone A	237	90.8%
Zone B	24	9.2%
Zone C	0	0 %
Zone D	0	0 %
Zone E	0	0,%
n=261		

Market Continuous Glucose Monitoring

540 million people living with diabetes

90 million people need glucose monitoring

2,88 million dogs and cats living with diabetes (Europe and US)

Q1 2023 Global CGM userbase 7 million[1]

Global CGM Market 1Q23: 2,2 billion USD[1]

Veterinary glucometer market size is projected to be valued at US$ 251,3 million in 2023[2]

[1] Source: *Closer Look Memorandum "Diabetes Technology 1Q23 Industry Roundup"*

[2] Source: *Future market insight FMI*

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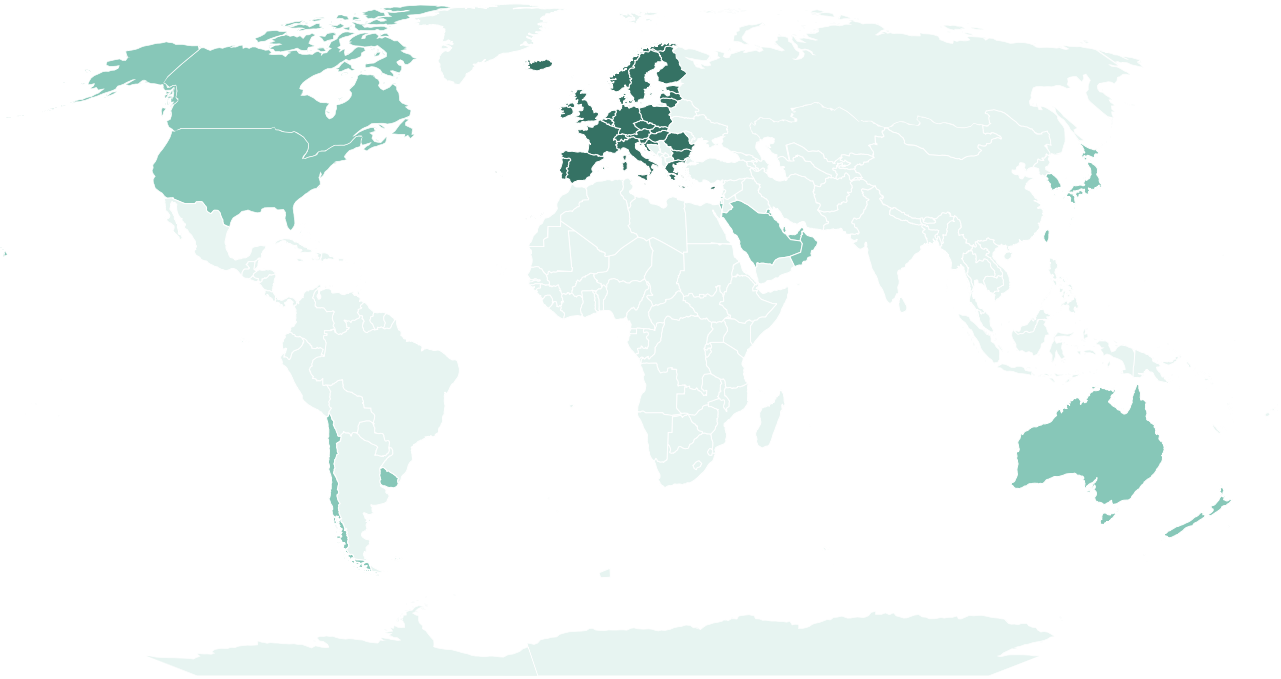
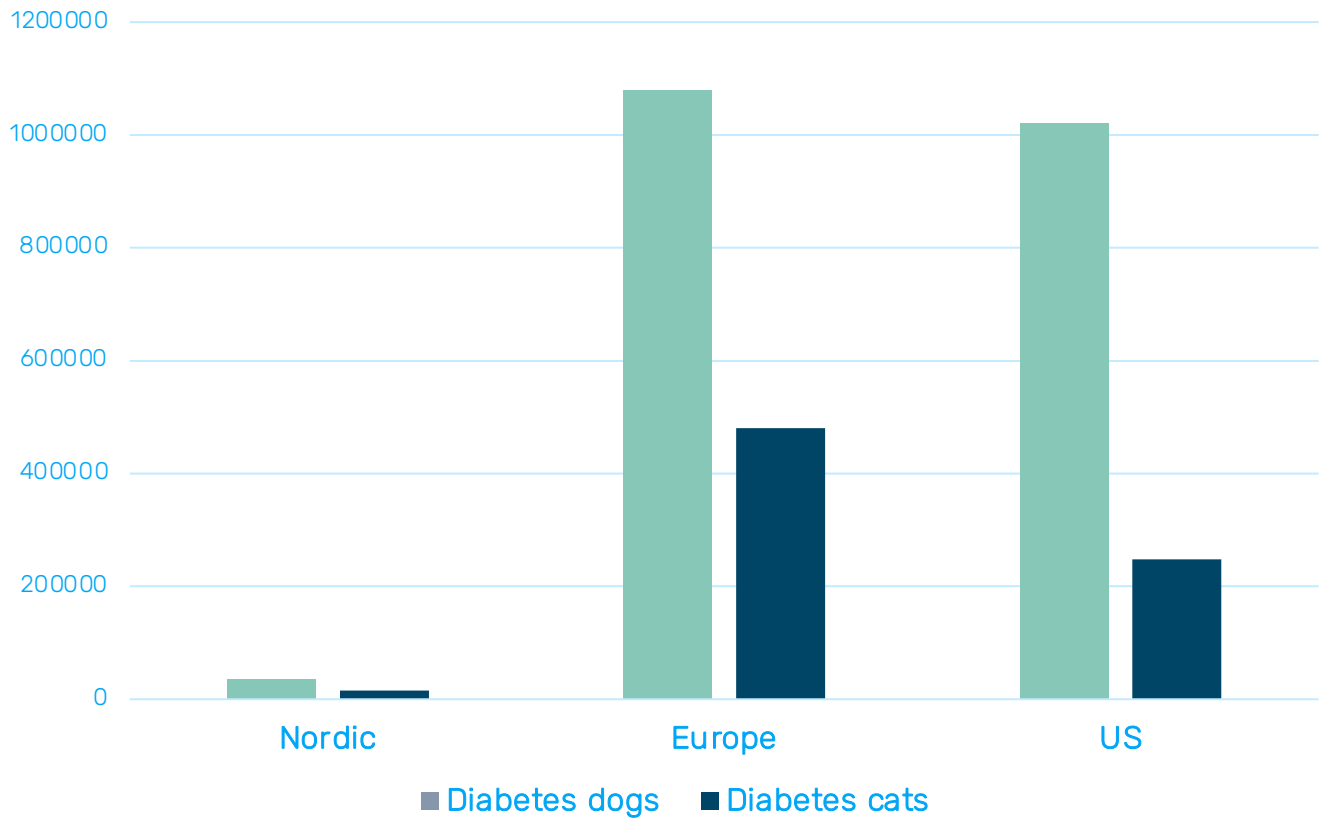
Potential target patient population

Regions targeted by Lifecare	Population with diabetes	Primary Target Type 1 (T1DM)	Primary Target Type 2 (T2DM)	Total target population
EU, EEA, UK, CH	36 Mill	2,3 Mill	6,3 Mill	8,6 Mill
US, CA	51 Mill	2,7 Mill	7,2 Mill	9,9 Mill
High Income countries	29 Mill	2,1 Mill	5,6 Mill	7,7 Mill
Sum	116 Mill	7,1 Mill	19,1 Mill	26,2 Mill



Source: International Diabetes Federation, Diabetes Atlas 10th edition, Dec. 2021

Potential veterinary target population



Number of dogs

Dogs that develop diabetes during their lifetime

1,2 %

Number of cats

Cats that develop diabetes during their lifetime (Type 1)

0,4 %

0,2 - 1 %

Sencell Human Market Potential

The basis for the market potential is described in the document "SENCELL Market Assumptions and Commercial Potential, April 2022» available for downloading at www.lifecare.no

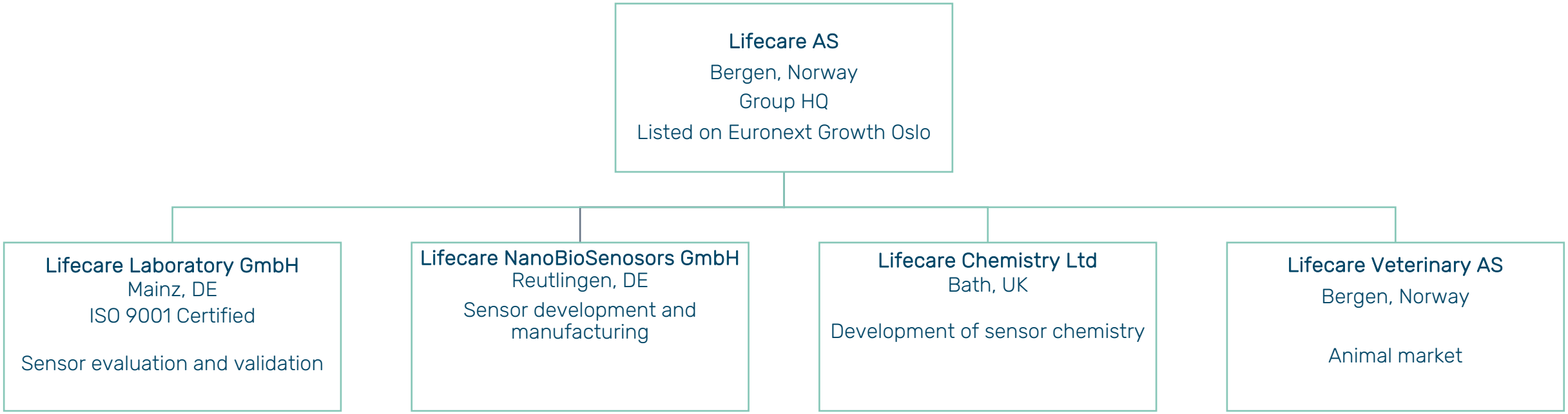
Assuming lower cost and longevity, accurate and user-friendly measurements - indicates potential to increase the global patient population access to Continuous Glucose Monitoring.

Sencell Market share assumptions:

	Low Case	Base Case	High Case
Primary Market (T1)	3%	5%	10%
Secondary Market (T2)	1%	3%	5%

Sencell – Potential Revenue Calculation (Human market)

Market penetration Sencell Base Case	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Level of assumed market penetration - base case							
EU, UK, EEA and CH	5%	20 %	40 %	80 %	95 %	100 %	100 %
US and CA	0%	0 %	10 %	30 %	50 %	75 %	95 %
AU, CL, IL, JP, KR, KW, NZ, OM, QA, SA, SG, TW, AE, UY	0%	2 %	15 %	40 %	70 %	95 %	100 %
Penetration, primary target patient population (T1DM) - base case	0,1%	0,4%	1,1%	2,5%	3,6%	4,5%	4,9%
Penetration, secondary target patient population (T2DM) - base case	0,1%	0,2%	0,7%	1,5%	2,2%	2,7%	3,0%
Units sold, primary target market, EU,UK,EEA and CH '000 (2 per patient per year)	12	49	98	198	238	253	256
Units sold, primary target market, US and CA '000 (2 per patient per year)	0	0	28	86	146	221	284
Units sold, primary target market, High Inc selection '000 (2 per patient per year)	0	4	33	89	157	215	229
Units sold, secondary target market, EU,UK,EEA and CH'000 (2 per patient per year)	19	79	159	321	386	410	414
Units sold, secondary target market, US and CA '000 (2 per patient per year)	0	0	46	140	236	359	460
Units sold, secondary target market, High Inc selection '000 (2 per patient per year)	0	7	53	144	254	349	371
Total units sold, '000	**31**	**139**	**418**	**979**	**1417**	**1807**	**2013**
Annual sales per patient for Sencell, EUR (325 eur per unit)	**650**	**650**	**650**	**650**	**650**	**650**	**650**
Revenues, EURm EU, UK, EEA and CH	10	41	84	169	203	216	218
Revenues, EURm US and CA	0	0	24	74	124	188	242
Revenues, EURm High Inc	0	4	28	75	134	183	195
Revenues, EURm	**10**	**45**	**136**	**318**	**460**	**587**	**654**


Lifecare AS
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Listed on Euronext Growth Oslo
Lifecare Laboratory GmbH
Mainz, DE
ISO 9001 Certified
Sensor evaluation and validation
Lifecare NanoBioSenosors GmbH
Reutlingen, DE
Sensor development and manufacturing
Lifecare Chemistry Ltd
Bath, UK
Development of sensor chemistry
Lifecare Veterinary AS
Bergen, Norway
Animal market

Directors and officers

Board of Directors

Morten Foros Krohnstad

Chairman of the Board

Kronstad is a partner in the law-firm Schjødt and an experienced business lawyer.

Extensive board experienced in Norwegian listed and un-listed companies.

Chief Executive Officer

Joacim Holter

LL.M. from University of Bergen

Chairman and member of the Lifecare Board of Directors 2011 - 2020.

Chief Scientific Officer

Prof. Dr. Dr. Med. Andreas Pfützner

MD and teaching professor

More than 30 years of pharmaceutical and device development experience within diabetes technology.

Scientific Advisors and Consultants

Prof. David Klonoff
Chairman Scientific Advisory Board, Founder and chairman of Diabetes Technology Society, Prof. UCSF

35+ years of academic and professional experience dedicated to research on diabetes and diabetes technology

Prof. Lutz Heinemann
Board of Directors and Scientific Advisory Board, Prof. University of Düsseldorf, Managing Editor Journal of Diabetes Science and Technology

30+ years of research and device development experience within diabetes technology.

Prof. Kristin P. Anfinsen,
DBM, MVETMED, DACVIM, DECVIM-CA at NMBU – Norwegian University of Life Science

20 years of academic and professional experience dedicated to research on small animal internal medicine

Prof. Kåre Birkeland
Scientific Advisory Board, Prof. University of Oslo

Head of Dep. of Endocrinology, Oslo University Hospital,

Head of Medical Council, Norwegian Diabetes Association

Council of the European Association for the Study of Diabetes

Prof. Michael Huth
Scientific Advisory Board, Vice-Dean Goethe University Frankfurt, Prof. Dep. Of Physics

Inventor of methode for nanoproduction, licensed by Lifecare for production of minaturized sensors

Prof. Tony James
Scientific Consultant, Prof. Dep. Of Chemistry University of Bath

Broad experience in interdisiplinary reaserch of sensor development, including glucose selective fluorescent used in the Eversense system

Mainz: manufacturing facilities for volume production

Investment history

Total investment 2006 - 2022	
83% Equity - 17% Public funding	165 MNOK

Public listing/Capital increase 2018	
Equity	33MNOK

Capital increase 2021	
Equity	26MNOK

Capital increase 2022	
Equity	45MNOK

Committed shareholders

	No. of shares	%
Teigland Eiendom As	24 691 829	20,95 %
Lacal As	18 187 712	15,43 %
Verdipapirfondet Nordea Avkastning	8 973 413	7,61 %
Spit Air As	3 087 735	2,62 %
Westhawk As	3 018 480	2,56 %
Sum	57 959 169	49 %
Remaining shareholders (2000+)	59 906 573	51 %
Shareholders	117 865 742	100 %


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