Arctic Bioscience
Company Presentation

March 2021

Company highlights

Key value proposition

1. **Significant unmet medical need in mild-to-moderate psoriasis - USD 20bn+ market for moderate psoriasis alone**
2. **Strong scientific rationale and promising clinical effect in mild-to-moderate psoriasis[1,2]**
3. **Cash generating and growing nutraceutical business**
4. **Proprietary technology platform with control over value chain underpins both businesses**
5. **Robust ESG footprint**
6. **Strong management team with broad experience within the pharmaceutical and nutraceutical industries**

Sources: 1) Tveit KS et al. A Randomized, Double-blind, Placebo-controlled Clinical Study to Investigate the efficacy of Herring Roe Oil for treatment of Psoriasis. Acta Derm Venereol. 2020 May 28;100(10):adv00154. doi: 10.2340/00015555-3507. PMID: 32378724; 2) Tveit KS et al. Long Term Efficacy and Safety of Herring Roe Oil in the Treatment of Psoriasis, a 39-week Open-label Extension Study. International Journal of Clinical and Experimental Medical Sciences. Vol. 7, No. 1, 2021, pp. 13-20. doi: 10.11648/j.ijcems.20210701.13.

Arctic Bioscience

Two unique businesses shaped built on a single proprietary platform technology platform

ARCTIC BIOSCIENCE

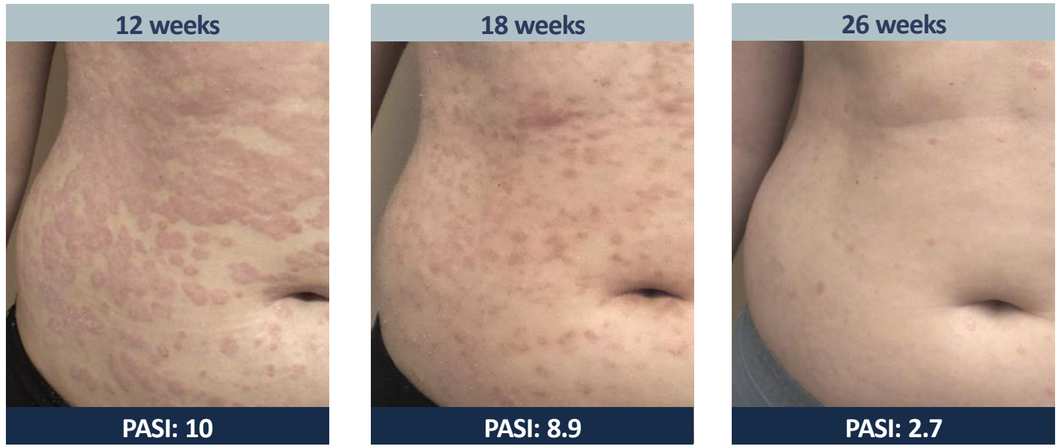
Knowledge platform and specialized know-how of bioactive herring roe compounds with unique properties

PHARMA

ARCTIC BIOSCIENCE

Large unmet medical need for efficacious, non-invasive treatment option in mild to moderate psoriasis.

Developing novel oral treatment (drug candidate HRO350) for mild to moderate psoriasis with large randomized Phase IIb study to be initiated.



HRO | Effect on mild to moderate psoriasis demonstrated in pilot clinical trial[1]

NUTRA ROMEGA

Premium differentiated OTC product set to capture attractive position in the global Omega 3 market.

Nutraceutical business has proven traction and global expansion potential in both B2C and B2B channels.

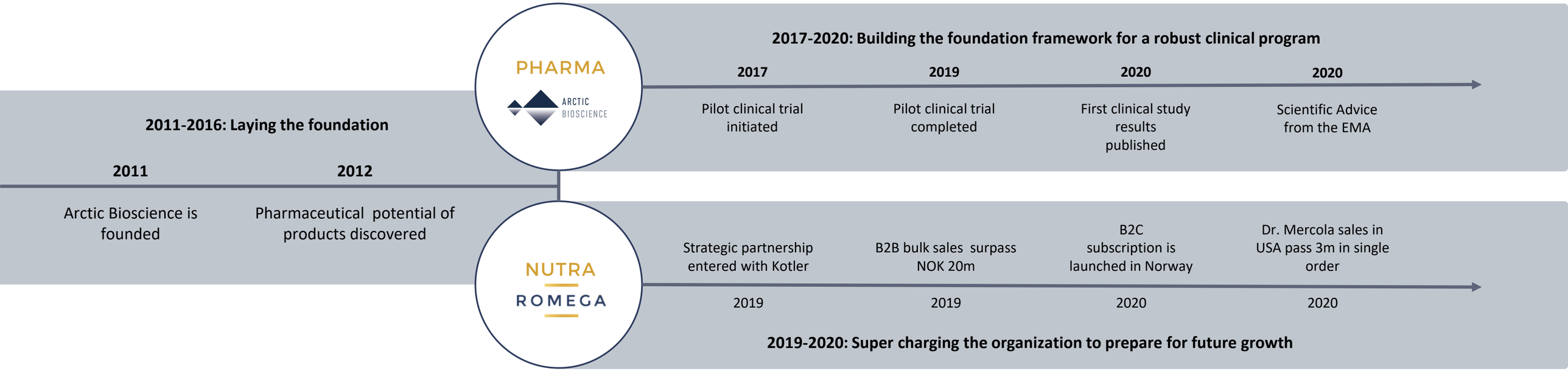
Nutraceutical Romega | Premium Omega-3 products extracted from herring roe, produced and distributed directly to consumers and in bulk (B2B)

Sources:1) Tveit KS, Brokstad KA, Berge RK, Sæbø PC, Hallaråker H, Brekke S, Meland N, Bjørndal B. A Randomized, Double-blind, Placebo-controlled Clinical Study to Investigate the efficacy of Herring Roe Oil for treatment of Psoriasis. Acta Derm Venereol. 2020 May 28;100(10):adv00154. doi: 10.2340/00015555-3507. PMID: 32378724; Data on file. Pictures: courtesy of Dr. Tveit.

Founding story

Arctic Bioscience was founded based on unique knowledge and know-how about the benefits of herring roe

Key lessons learned through nutra product enables efficient development of the pharma product



Significant resources deployed into R&D to enable attractive routes to market

Proprietary technology platform with control over value chain

Sustainable competitive advantage ensured through vertical integration of the value chain

Arctic Bioscience's comprehensive value chain

Sustainable raw material + **State-of-the-art manufacturing**

Herring capture

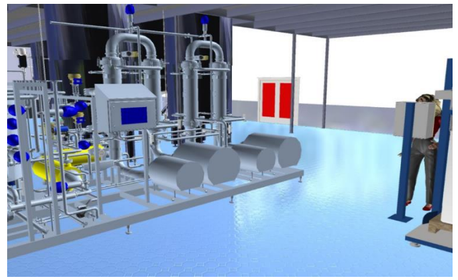
Geographical proximity to Norwegian herring fisheries ensures a sustainable and reliable access to immature roe

By-product: Immature roe

Roe from herring fillet production is used as a valuable source of marine lipids

Extraction

Premium herring roe extracts produced based on patented technology and advanced know how



Production

New state-of-the-art manufacturing facility with GMP standard, enabling Arctic Bioscience to retain proprietary product know-how, IP and control the value chain[1]

Sustainable low carbon footprint

High barriers to entry and unique competitive position

Significant gross margin improvement

Sources: 1) Until production can be moved to the Company's new factory in Norway, the Company relies on its agreement with Naturex S.A. to produce all of its nutraceutical products

Exciting pharma opportunity in mild to moderate psoriasis

ARCTIC BIOSCIENCE

Targeting large patient population with mild-to-moderate psoriasis

WHO has called for new, safe, and effective medications[1]

- **~24 million people in EU & US have psoriasis**
- ~3% prevalence rate
- Worldwide market of ~230 million patients

- **~90% of the cases are mild to moderate psoriasis**
- Target market of ~21 million people in the EUR & US and ~210 million patients worldwide

Country	Incidence rate	Prevalence rate	Prevalent pool (mill)
	0.07%	3.2%	10.5
	0.14%	2.8%	1.9
	0.52%	2.5%	2.1
	NA	5.7%	3.7
	0.23%	3.1%	1.9
	NA	2.3%	1.1
Total number of psoriasis patients			21.2

Source: 1) WHO Global report on psoriasis 2016

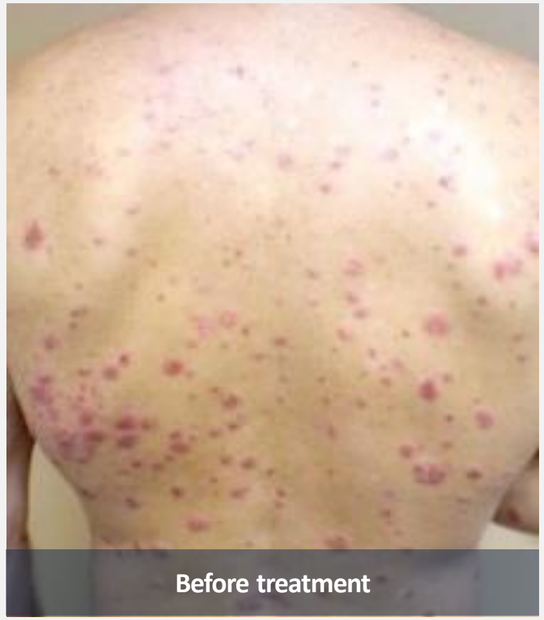
Unique pharma opportunity in mild-to-moderate psoriasis

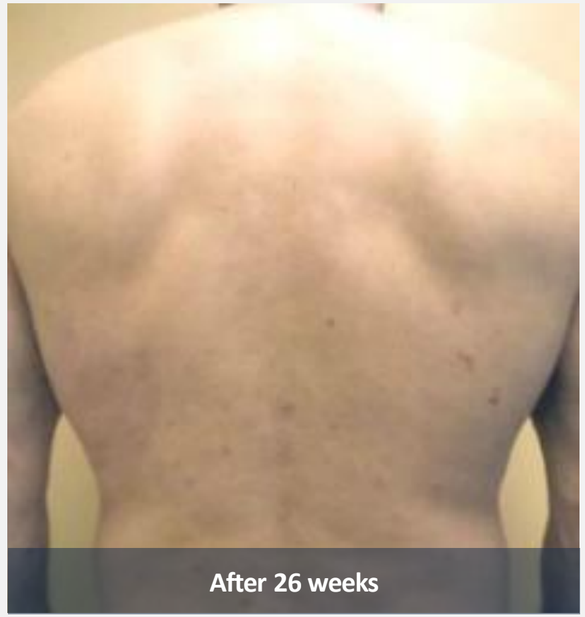
EMA CHMP also supportive

Randomized, double-blind placebo controlled clinical trial showed statistically significant improvement in mild to moderate psoriasis compared to placebo

Clinical trial in 64 patients with mild to moderate psoriasis (PASI<10)

PASI <10	6g HRO (n=32)	Placebo (n=32)
Week 26 Placebo-controlled phase	**-38%** PASI reduction	**-7%** in placebo group
Week 65 15 months Open Label Extension from week 26	**-54%** PASI reduction	Placebo group received HRO from week 26





- **Trial:** Randomized, placebo-controlled pilot clinical trial in patients with mild to moderate psoriasis (Psoriasis Area Severity Index, PASI <10)
- **Results:** Clinical signals of efficacy combined with beneficial safety profile

- The drug candidate HRO350 will be produced according to GMP and represents an attractive and differentiated asset with potentially beneficial safety profile and ease-of-use as oral treatment in mild to moderate psoriasis
- Potential for a first-in-class therapeutic treatment for a global population with few existing treatment alternatives

ARCTIC BIOSCIENCE

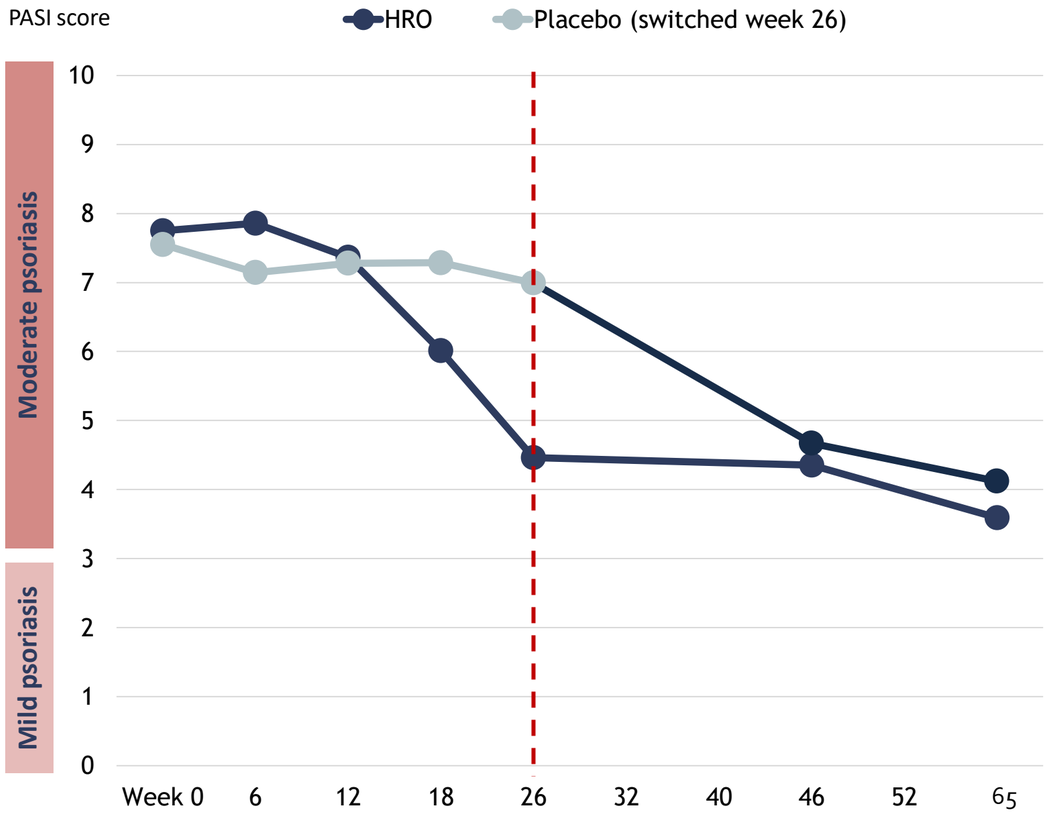
Sources: Tveit KS, Brokstad KA, Berge RK, Sæbø PC, Hallaråker H, Brekke S, Meland N, Bjørndal B. A Randomized, Double-blind, Placebo-controlled Clinical Study to Investigate the efficacy of Herring Roe Oil for treatment of Psoriasis. Acta Derm Venereol. 2020 May 28;100(10):adv00154. doi: 10.2340/00015555-3507. PMID: 32378724; Tveit KS et al. Long Term Efficacy and Safety of Herring Roe Oil in the Treatment of Psoriasis, a 39-week Open-label Extension Study. International Journal of Clinical and Experimental Medical Sciences. Vol. 7, No. 1, 2021, pp. 13-20. doi: 10.11648/j.ijcems.20210701.13. 1) Data on file (PASI>5.5 week 26-15 months).
HRO350 Commercial Opportunity Assessment in Psoriasis, IQVIA
PASI: Psoriasis Area and Severity Index. GMP: Good Manufacturing Practice

Greatest efficacy seen in subjects with moderate psoriasis

Statistically significant improvement in PASI versus placebo

- Randomized, placebo-controlled pilot clinical trial in mild to moderate psoriasis (PASI<10, n=64)
- Primary end-point: Change in mean Psoriasis Area Severity Index (PASI) at week 26
- Statistically significant improvement in mean PASI with HRO versus placebo at week 26
  - Overall PASI reduction of 38% at week 26
- Greatest PASI reduction at week 26 observed in subjects with moderate psoriasis
  - Subjects with baseline PASI >5.5 showed average reduction of -2.4 PASI score
- Well tolerated, no serious adverse events were related to the administration of active treatment or placebo at week 26

Subgroup analysis | Subjects with PASI baseline>5.5



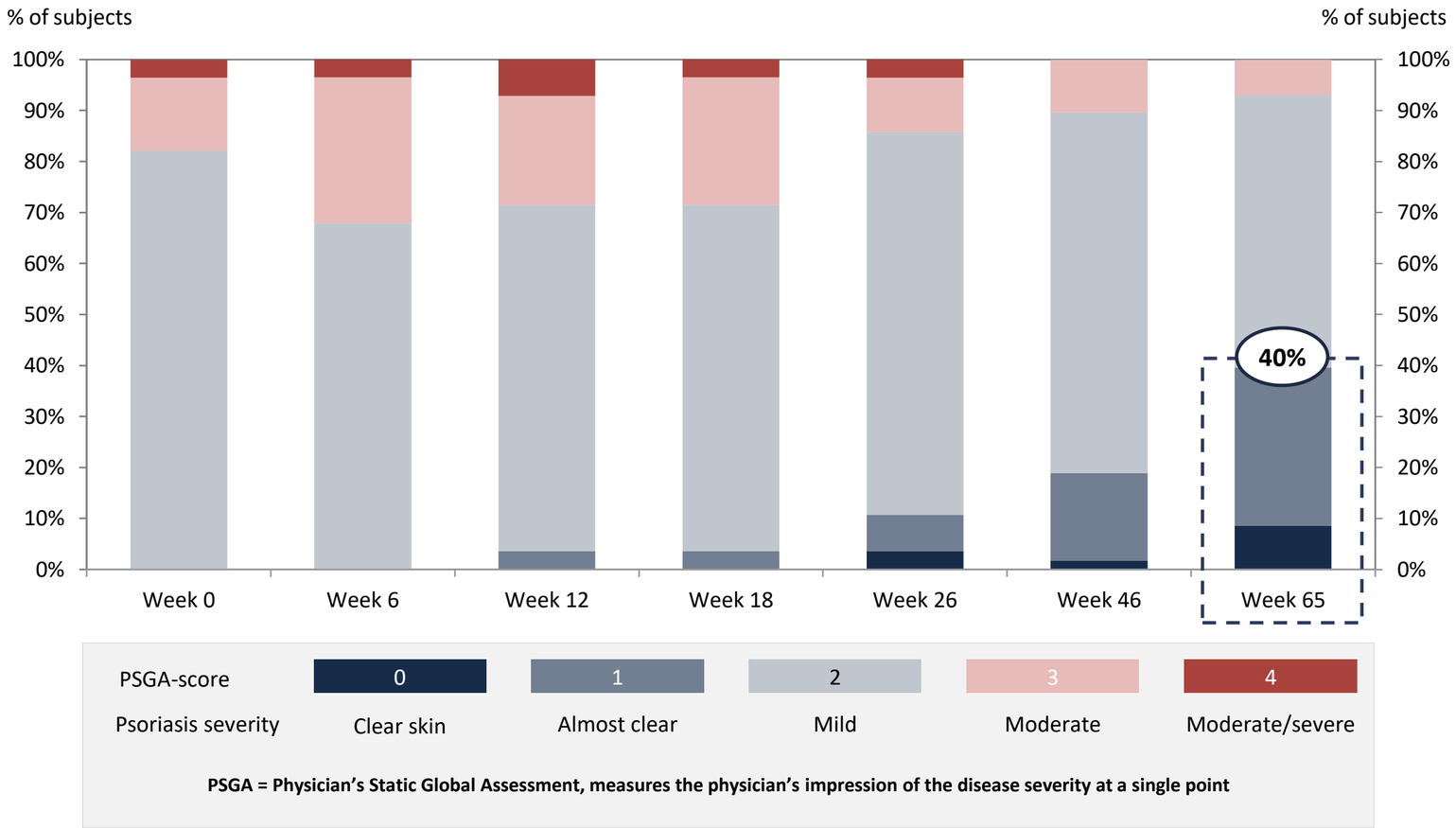
Mean change in PASI score at week 26 estimated to -2.4 with a 95% confidence interval <-4.3, - 0.5>, p = 0.0157 (n=31 with PASI>5.5). Week 26 – 60 was an open label extension with no placebo-control (n=28 with PASI>5.5)

Sources: Tveit KS, Brokstad KA, Berge RK, Sæbø PC, Hallaråker H, Brekke S, Meland N, Bjørndal B. A Randomized, Double-blind, Placebo-controlled Clinical Study to Investigate the efficacy of Herring Roe Oil for treatment of Psoriasis. Acta Derm Venereol. 2020 May 28;100(10):adv00154. doi: 10.2340/00015555-3507. PMID: 32378724; Tveit KS et al. Long Term Efficacy and Safety of Herring Roe Oil in the Treatment of Psoriasis, a 39-week Open-label Extension Study. International Journal of Clinical and Experimental Medical Sciences. Vol. 7, No. 1, 2021, pp. 13-20. doi: 10.11648/j.ijcems.20210701.13 . Data on file (PASI>5.5 week 26-15 months)
PASI: Psoriasis Area and Severity Index; HRO: Herring Roe Oil capsules

Efficacy is sustained and increases over time

Supported by secondary variable (PSGA) at week 65 (n=58)

Relative change in PSGA score from baseline



PSGA = Physician's Static Global Assessment, measures the physician's impression of the disease severity at a single point

Improvement in disease severity

- All patients had PSGA scores ≥2 and ≤4 at inclusion
- 40% of patients achieved clear-or-almost clear skin after 65 weeks
- After 65 weeks no patient had a PSGA score higher than 3
- In total, 46.6% of patients had a reduction in their PSGA score

ARCTIC BIOSCIENCE

Sources: Tveit KS et al. Long Term Efficacy and Safety of Herring Roe Oil in the Treatment of Psoriasis, a 39-week Open-label Extension Study. International Journal of Clinical and Experimental Medical Sciences. Vol. 7, No. 1, 2021, pp. 13-20. doi: 10.11648/j.ijcems.20210701.13

Natural product with compelling safety profile

Based on unique know-how throughout proprietary production process, protected by strong IP

Safety profile | Well tolerated in pilot clinical trial

> No serious adverse events were related to the administration of active treatment or placebo
>
> **– Conclusion from pilot clinical study after 26 weeks**[1]

Natural product | Extract from herring roe

Strong commercialization advantages

- ✓ Demonstrated efficacy from pilot clinical study
- ✓ First-in-class oral treatment
- ✓ Better safety profile than alternatives
- ✓ Possible prevention of disease progression
- ✓ Possible effect on comorbidities
- ✓ Low incremental health care cost

High barriers to entry

- ✓ Broad lipids patent portfolio and herring roe extracts
- ✓ Secured access to raw materials
- ✓ Unique know-how in proprietary production process
- ✓ Market protection in EU for 10 years from marketing authorization (MA)

Source: Tveit KS, Brokstad KA, Berge RK, Sæbø PC, Hallaråker H, Brekke S, Meland N, Bjørndal B. A Randomized, Double-blind, Placebo-controlled Clinical Study to Investigate the efficacy of Herring Roe Oil for treatment of Psoriasis. Acta Derm Venereol. 2020 May 28;100(10):adv00154. doi: 10.2340/00015555-3507. PMID: 32378724

Open market opportunity for safe and effective oral treatment

Clear need for new therapies targeting the moderate psoriasis segment

	Mild (PASI<3)	Moderate (PASI>3)	Severe (PASI>10)
Oral	ARCTIC BIOSCIENCE	almirall, Bristol-Myers Squibb	
Parenteral (injections)			abbvie, Lilly, janssen, NOVARTIS
Topical	LEO, mayne pharma		
Price point	<10K NOK/year	30-50k NOK/Year	50-300 NOK/year (Europe & USA)

HRO350 scores well against competitors	
Administration	Oral
Active substance	No other product with active product ingredient
Psoriasis indication	Mild to moderate disease
Severity at inclusion	Few treatment options for non-severe disease
Efficacy level	Efficacy in mild to moderate disease demonstrated in pilot clinical trial
Quality of life	Improvement in quality of life demonstrated in pilot clinical trial
Safety profile	Well tolerated in pilot clinical trial
Monitoring	50% of competitive products require monitoring – unlikely needed for HRO350

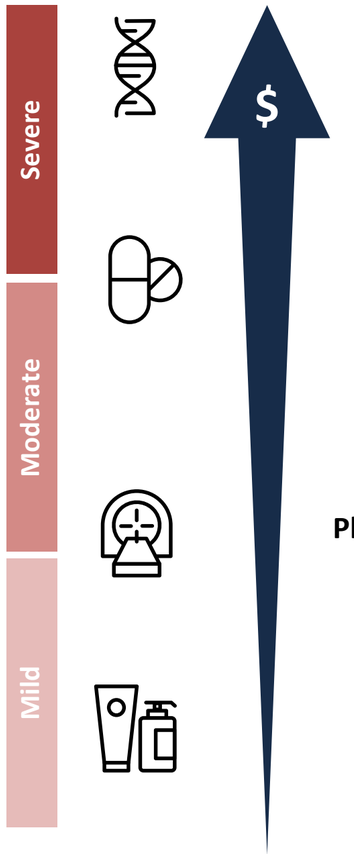
PASI: Psoriasis Area and Severity Index

Sources: WHO Global report on psoriasis 2016, Company analysis; HRO350 Commercial Opportunity Assessment in Psoriasis, IQVIA.: Tveit KS, Brokstad KA, Berge RK, Sæbø PC, Hallaråker H, Brekke S, Meland N, Bjørndal B. A Randomized, Double-blind, Placebo-controlled Clinical Study to Investigate the efficacy of Herring Roe Oil for treatment of Psoriasis. Acta Derm Venereol. 2020 May 28;100(10):adv00154. doi: 10.2340/00015555-3507. PMID: 32378724; Tveit KS et al. Long Term Efficacy and Safety of Herring Roe Oil in the Treatment of Psoriasis, a 39-week Open-label Extension Study. International Journal of Clinical and Experimental Medical Sciences. Vol. 7, No. 1, 2021, pp. 13-20. doi: 10.11648/j.ijcems.20210701.13 .

Key Opinion Leaders see significant unmet medical need

Few treatment options for mild to moderate psoriasis

50-300k NOK per year (Europe & USA)



Biologics
Very expensive, limited to severe patients (PASI>10) and contraindicated for some patients due to safety profile

Systemic
Variable level of efficacy, expensive options, safety considerations, especially with immunosuppressants in COVID context

Phototherapy
Effective but inconvenient to patients in areas lacking local availability of treatment facilities

Topical
Safety concerns with long term continuous use, inconvenient for patients, limited effectivity in moderate disease

< NOK 10k per year

> *The biggest unmet need is that of an oral therapy that is totally safe and effective. We have some terrific biologics out there, but the issue is not everybody likes to be injected, not even if it is once in 3 months."*
>
> **– Practicing Dermatologist, US**

> *Otezla (apremilast) is a very expensive drug, I will use it only in exceptional cases, only on patients who have had a history of cancer or infections and need more safety, cannot tolerate MTX."*
>
> **– Senior Physician, Department of Dermatology, Germany**

> *I don't like to use a lot of biologics for moderate patients. Each new generation coming into market is so expensive, it costs so much to the healthcare system. I would prefer non-biologic, oral treatments."*
>
> **– Practicing Dermatologist, US**

Source: HRO350 Commercial Opportunity Assessment in Psoriasis, IQVIA

Large Phase IIb study to drive pharma forward

Initiating phase IIb trial to investigate efficacy, safety and dose of drug candidate HRO350 versus placebo

Phase IIb study design

Patients: 519

Duration: 60 Weeks
Primary endpoint: 26 weeks

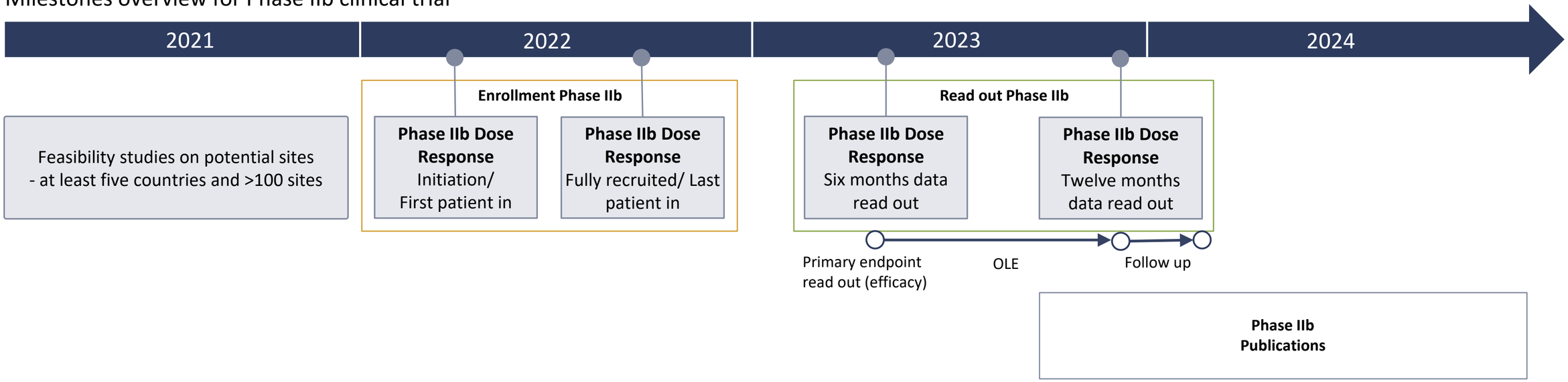
173 patients
6g HRO350

173 patients
3g HRO350

173 patients
Placebo

- Initiating large randomized Phase IIb study in 1Q 2022 in patients with mild-to-moderate psoriasis
- Given successful Phase IIb study the company plans to initiate a Phase III study, submit MMA and prepare for commercialization through partnerships
- Potential for 'first-in-class' therapeutic treatment for a global patient population with few existing treatment alternatives

Milestones overview for Phase IIb clinical trial



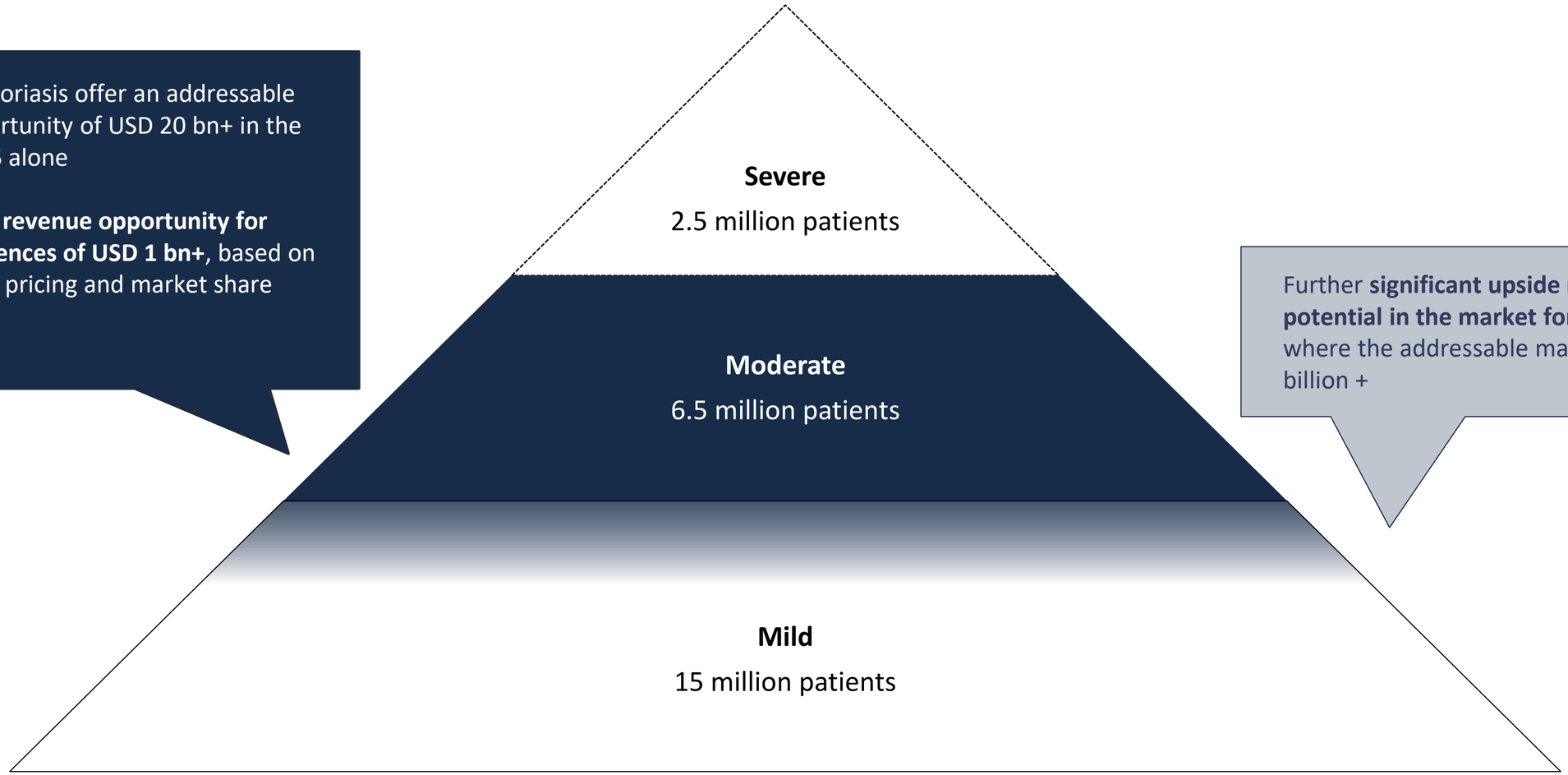
USD 20bn+ market opportunity in moderate psoriasis alone (USA + EU5)

USD 1bn+ per year revenue opportunity in moderate psoriasis with further substantial revenue upside in mild psoriasis

Total Addressable Market in USA and EU5

Moderate psoriasis offer an addressable market opportunity of USD 20 bn+ in the USA and EU5 alone

Peak annual revenue opportunity for Arctic Biosciences of USD 1 bn+, based on conservative pricing and market share assumptions



Further **significant upside revenue potential in the market for mild psoriasis,** where the addressable market is USD 40 billion +

Sources: 1) IQVIA HRO350 Commercial opportunity assessment in psoriasis, December 2020

Cash generating nutraceutical business with clear growth strategy

ARCTIC BIOSCIENCE

Nutraceutical business

Romega | Premium Omega-3 products extracted, produced and distributed directly to consumers and in bulk (B2B)

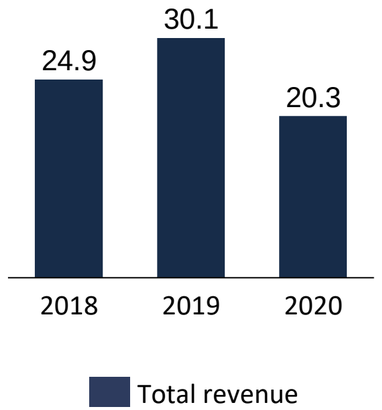
Key highlights

NUTRA ROMEGA

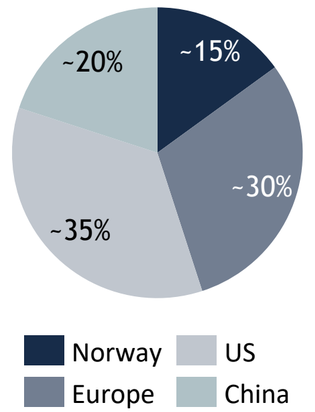
- **Cash generating and business with loyal and growing customer base**
- **Vast global omega-3 market set for further growth, with Romega attractively positioned vs. competition**
- **Organization ready to execute on proven international go-to-market strategy, with key partnerships already secured**
- **Multiple avenues for growth through B2C and B2B sales as well as through distribution partners**
- **Model partnership with Kotler in China validates market potential and strategy**

Financials

Historical Nutra sales (NOKm)



Geographical growth focus



Premium differentiated product

- **Bioavailability:** Significant source of Omega-3 in phospholipid form with documented high absorption
- **Phospholipids:** Rich in DHA & EPA phospholipids, contains choline & Vitamin D
- **DHA:EPA ratio of 3:1**

Key performance indicators (2020)

Total revenue	Subscription revenues	Gross margin
NOK 20.6m	NOK 3.4m	~30%

Successful launch in China through Kotler partnership

Partnership with Kotler serves as precedent for Arctic Bioscience's go-to-market strategy going forward

China – an ideal target market for Romega

- **Massive market** – Several billion dollar Omega-3 market with strong growth expected due to rising middle-class population coupled with strong underlying drivers
- **Attractive selling points** – Unique membrane lipid Omega - Premium quality made in Norway - High status of caviar products in China

China is one of the largest Omega-3 markets in the world

Developed strong relationship with Kotler for efficient market entry and sales growth

- **Nature of partnership:** Kotler taking ownership in Arctic Biosciences[1] and lead on marketing strategy – well known for its world-class marketing expertise
- Deep **local market insight** and resources available for sales and distribution
- Established diverse **e-commerce platforms** for initial market entry in 2020

Tailored prenatal product launched in China together with Kotler

Foundation for long-term export success story set – Strategic partnership model to be replicated

- **2020 test launch:** Early sales data have been positive and demonstrates great adoption in the Chinese market – the stage is set for a long-term export success story
- **Model partnership:** The partnership with Kotler is illustrative of the preferred B2B2C go-to-market strategy going forward.
- Further collaborations with Kotler and other partners to be explored in **new geographies**

Philip Kotler & Ole Arne Eiksund (CEO)

ARCTIC BIOSCIENCE

Source: Company information
1) Subject to completion of the contemplated private placement towards Kotler

Nutraceutical business longer-term ambitions

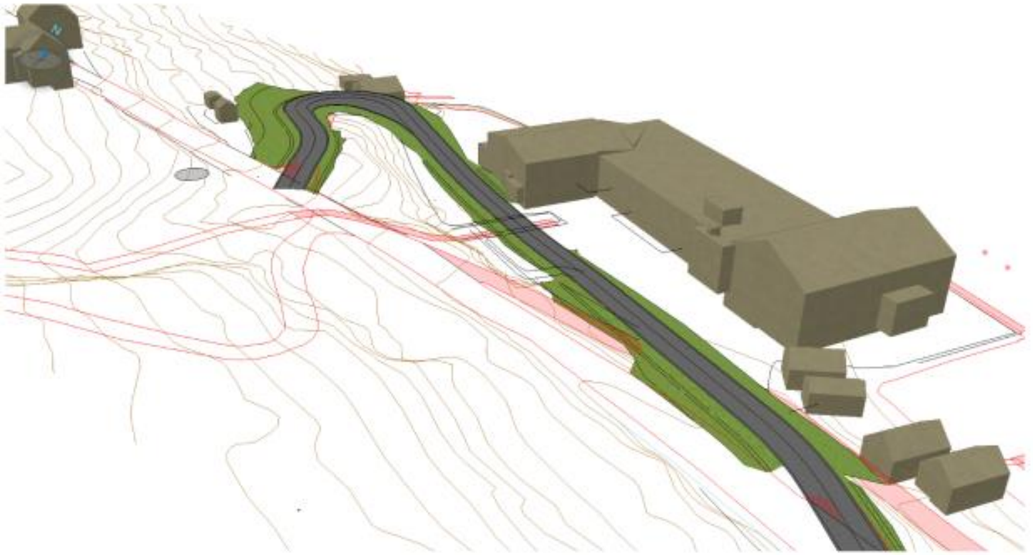
Metric	Outlook and Strategy
High % revenue growth	▪ Fastest growth expected in high margin finished product categories (both B2C and B2B) and protein ▪ Strategic sales and marketing partnerships in APAC and USA represent efficient routes to market
Sharp increase in gross margin	▪ Improvement driven by investment in new factory, benefits of scale and shift towards sale of higher margin B2C/B2B finished products
Increased B2C subscription revenues	▪ B2C subscription based revenues expected to ‘step’ increase in the coming years and comprise a relatively steady share of revenues thereafter ▪ Focus on Scandinavia, USA and selected European markets
Increased B2B2C sales through strategic partnerships	▪ Shift towards sales of higher margin finished good products over bulk ingredients in B2B strategy (new channel focus) ▪ Strategic partnerships will focus on B2B2C sales of finished goods and white label products
International focus	▪ Increased focus on the USA and APAC as the fastest growing and least price sensitive markets for nutraceuticals ▪ Expand product portfolio and upsell new products

Both businesses underpinned by proprietary technology and strong management team

State of the art manufacturing facility

Vertical integration throughout the value chain seals sustainable competitive advantage

- Investing in growth through a new state-of-the-art manufacturing facility with GMP standard
- Secures full control of value chain from proprietary know-how and IP through sustainable raw material to world-class manufacturing
- Enabling production of Phase III clinical material and drug candidate HRO350
- Leads to step improvement in margin in nutraceutical business



Source: 1) WHO Global report on psoriasis 2016

Strong management team

Broad experience within the pharmaceutical and nutraceutical industries

Management team with top expertise and experience

Ole Arne Eiksund, *MSc, MBA*

CEO

+30 years experience

Former positions include Commercial Director in GSK and VP Global Sales in Hofseth Biocare and EVP Rimfrost.

Danielle Glenn, *BA*

CFO

+20 years experience

Former global macro hedge fund manager at Goldman Sachs and Caxton, CEO, CFO and CSO of multiple startups in US, UK and Norway

Runhild Gammelsæter, *PhD*

Global Medical Director

+15 years experience

Former positions include medical leadership roles in GSK, Abbvie and Abbott, as well as experience from start-up biotech

Hogne Hallaråker, *MSc*

CSO

+15 years experience

Founder of Arctic Bioscience and more than 15 years of experience from nutra industries

Per Christian Sæbø, *MSc*

COO

+20 years experience

Former positions include Lipid Development Director in Natural ASA and Site Manager at EPAX, Hovdebygda

Daniele Mancinelli, *MSc*

CTO

+20 years experience

R&D specialist in omega -3 fatty acids and responsible for concept testing, verification and up-scaling

Yuming Feng, *PhD*

EVP Global Business Dev

+30 years experience

Former positions include Procurement Manager at Campbell's, EVP at Zoneco and CEO at Holley Int.

Lauren Jensen, *MBA*

SVP Sales and Marketing

+15 years experience

Former positions within global marketing, branding and communications for mid-size and large enterprises

Advisors with long experience in pharmaceutical development

Åge Nærdal *Cand. Pharm.* Former positions include CEO GlaxoSmithKline AS, 30 years experience from pharmaceutical industry. Advises on pharmaceutical business development

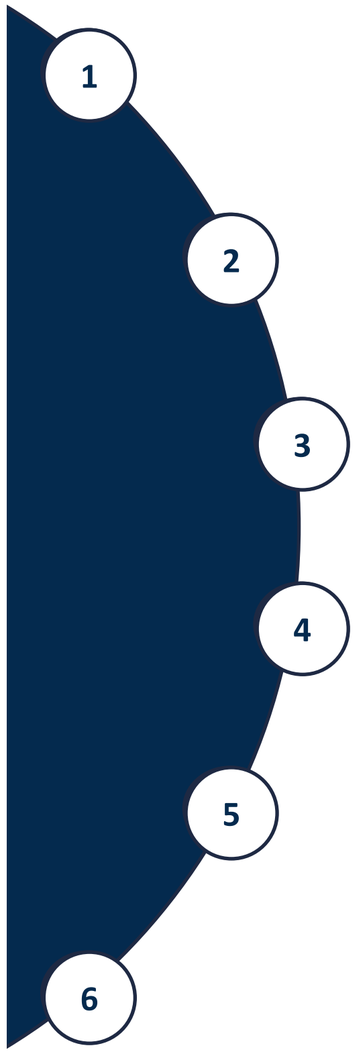
Kari Grønås, *Cand. Pharm.* Broad experience from the pharmaceutical/biotech industry and securing regulatory approvals. Advises on regulatory processes and CMC development of GMP product

Knut Smerud, *MSc, biochemistry.* Owner of the CRO Smerud Medical Research. Advises on clinical development program, clinical trial design and regulatory processes

Kåre Steinar Tveit, *MD*. Dermatologist at the Haukeland University Hospital, Norway. Advises on clinical treatment of psoriasis

Investment highlights

Key value proposition



Significant unmet medical need in psoriasis represents USD 20bn+ market for moderate psoriasis alone

- Large target market with 21m patients across EU and the US in 2019[1]
- Few and poor treatment options and a patient population with a high degree of disease-involvement

Strong scientific rationale and promising clinical effect in mild-to-moderate psoriasis

- Efficacy signals demonstrated in a completed randomized controlled clinical trial, showing sustained and increased effect over time[2,3]
- Unencumbered asset with worldwide rights retained

Cash generating and growing nutraceutical business

- Strong foundation secured through cash-generating nutraceutical business that supports pharmaceutical development
- Revenue of NOK 20.6m for 2020, with strong growth expected through launch in new markets

Proprietary technology platform with control over value chain underpins both businesses

- In-house manufacturing facility to be constructed and an experienced R&D-team securing attractive gross margins and full control of the value chain
- Protected by a comprehensive portfolio of patents, technological know-how, and confirmed freedom to operate

Robust ESG footprint

- Sustainable end-product based on immature roe, a by-product of herring capture
- Strategically situated to ensure sustainable access to immature roe

Strong management team with broad experience within the pharmaceutical and nutraceutical industries

- Executive team with an average of 20 years of relevant industry experience
- Broad experience within the pharmaceutical and nutraceutical industries

Sources: 1) IQVIA HRO350 Commercial opportunity assessment in psoriasis, December 2020; 2) Tveit KS et al. A Randomized, Double-blind, Placebo-controlled Clinical Study to Investigate the efficacy of Herring Roe Oil for treatment of Psoriasis. Acta Derm Venereol. 2020 May 28;100(10):adv00154. doi: 10.2340/00015555-3507. PMID: 32378724; 3) Tveit KS et al. Long Term Efficacy and Safety of Herring Roe Oil in the Treatment of Psoriasis, a 39-week Open-label Extension Study. International Journal of Clinical and Experimental Medical Sciences. Vol. 7, No. 1, 2021, pp. 13-20. doi: 10.11648/j.ijcems.20210701.13.


ARCTIC
BIOSCIENCE