SCINAI

IMMUNOTHERAPEUTICS

CORPORATE PRESENTATION | JANUARY 2024 | NASDAQ: SCNI

SAFE HARBOR STATEMENT

This communication contains forward-looking statements within the meaning of the Private Litigation Reform Act of 1995. Words such as “expect,” “believe,” “intend,” “plan,” “continue,” “may,” “will,” “anticipate,” and similar expressions are intended to identify such forward-looking statements. All statements, other than statements of historical facts, included in this communication regarding strategy, future operations, future financial position, future revenue, projected expenses, prospects, plans and objectives of the management of Scinai Immunotherapeutics Ltd. ("Scinai") are forward-looking statements. Examples of such statements include, but are not limited to, statements regarding the therapeutic and commercial potential of nanosized antibodies (NanoAbs); the pipeline market potential; and the timing of NanoAb proof-of-concept studies and clinical trials. These forward-looking statements reflect management’s current views with respect to certain current and future events and are subject to various risks, uncertainties and assumptions that could cause results to differ materially from those expressed or implied by such forward-looking statements. Such risks and uncertainties include, but are not limited to, those related to: the possibility that the therapeutic and commercial potential of NanoAbs will not be met; potential changes in the pipeline market potential; a delay in the preclinical and clinical data for NanoAbs, if any; Scinai’s ability to secure additional capital on attractive terms, if at all; Scinai’s ability to acquire rights to additional product opportunities; Scinai’s ability to enter into collaborations on terms acceptable to Scinai or at all; timing of receipt of regulatory approval of Scinai’s manufacturing facility in Jerusalem, if at all or when required; the manufacturing facility will not be able to be used for a wide variety of applications and other pharmaceutical technologies; and those inherent in drug development, which involves a lengthy and expensive process with uncertain outcomes. More detailed information about such risks and uncertainties can be found in the Company's filings with the Securities and Exchange Commission (the "SEC"), including those set forth in the section entitled “Risk Factors” in the Company's Annual Report on Form 10-K filed with the SEC on April 17, 2023. Scinai undertakes no obligation to revise or update any forward-looking statement.

2024: BUILDING ON 2023'S MOMENTUM

	2023	2024
PIPELINE DEVELOPMENT	• Licensed anti-IL-17 NanoAb • Completed ex-vivo study: Potential psoriasis treatment • COVID-19 NanoAb: In-vivo studies: Prophylactic & Therapeutic	• Anti-IL-17 NanoAb in-vivo psoriasis study • Ready for first-in-human clinical trial • Strengthen pipeline
BUSINESS DEVELOPMENT	• Launched Scinai Bioservices CDMO • Capital infusions • New name, new brand	• More CDMO clients • Pursue partnerships

TWO COMPLEMENTARY BUSINESS UNITS

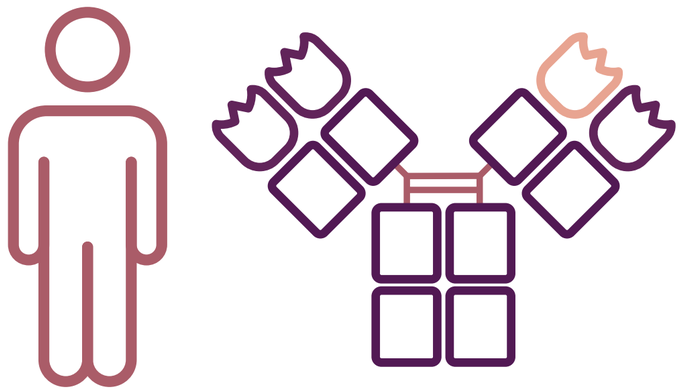
SCINAI IMMUNOTHERAPEUTICS

Development of inflammation and immunology (I&I) biological therapeutic products beginning with pipeline of nanosized VHH antibodies (NanoAbs) targeting diseases with large unmet medical needs

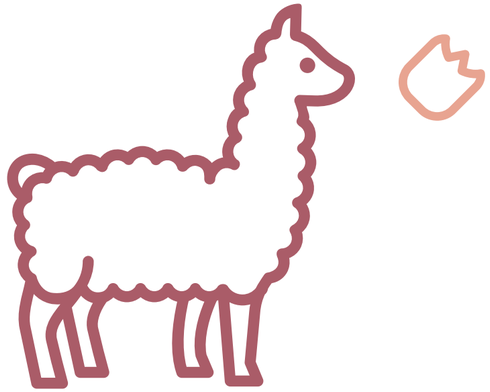
SCINAI BIOSERVICES

End-to-end boutique CDMO services to help bring products to market by leveraging Scinai's GMP and non-GMP drug development and manufacturing capabilities

NANOSIZED ANTIBODY PIPELINE: HUGE OPPORTUNITY



HUMAN ANTIBODY (mAb)



ALPACA-DERIVED ANTIBODY (NanoAb)

Alpaca-derived nanosized antibodies (NanoAbs) are also known as VHH antibodies or nanobodies[1]

mAb therapeutic market size is ~$205 billion[2] including Cosentyx for psoriasis $4.8 billion (2022)[3]

NanoAbs: Human monoclonal antibody (mAb)'s biobetter

1. VHH antibody is trademarked by ABLYNX N.V., a wholly owned subsidiary of Sanofi, as Nanobody. Scinai has no affiliation with and is not endorsed by Sanofi.

2. https://www.researchandmarkets.com/reports/5791212/monoclonal-antibody-therapeutics-market-source (accessed 14.Aug.2023)

3. https://www.reporting.novartis.com/2022/novartis-in-society/performance-in-2022/financial-performance.html (Accessed 7.Jan.2024)

MAX PLANCK, UMG, SCINAI COLLABORATION

Covering discovery and initial characterization of NanoAbs aimed at predefined list of molecular targets.

Designed to create significant clinical and commercial advantages.

Scinai brings…

- Recombinant protein drug development experience from lab to Phase 3 clinical trial
- Manufacturing, quality, international regulatory experience
- GMP biologics manufacturing facility
- Best-in-class equipped labs
- Top-tier big pharma & biotech leadership expertise

The Max Planck Institute & UMG[1] bring…

- World-class science & access to leading scientists
- NanoAb platform for the development of promising potent therapeutics
- Patents covering NanoAbs & their manufacturing

Professor Dr Dirk Görlich
Director of Max Planck Institute for Multidisciplinary Sciences
Winner of inaugural World Laureates Association (WLA) Prize in Life Sciences or Medicine

Professor Dr Matthias Dobbelstein
Fellow at Max Planck Institute for Multidisciplinary Sciences
UMG Head of Department

1. Max Planck Institute for Multidisciplinary Sciences and the University Medical Center Göttingen (UMG)

PLATFORM VALUE PROPOSITION

NanoAbs' unique physicochemical attributes can generate multiple crucial advantages vs human monoclonal antibodies (mAbs)

Manufacturing

- 10-times more active pharmaceutical ingredients (API) per gram of manufactured protein vs. mAbs
- Faster and lower cost production in yeast (pichia) vs mammalian cells

R&D

- Quicker antibody discovery and optimization due to massive libraries
- De-risked pipeline development leveraging approved mAb targets

Product

- Hyper-thermostable = longer shelf life, easier storage & distribution
- Superior specificity & affinity to target potentially enables lower dose, fewer adverse events, lower cost
- Adaptable half life

Patient Safety & Convenience

- Multiple, easier routes of administration
- Lower immunogenicity
- Fewer contraindications
- Potentially safer & lower dose

DERISKED DRUG DEVELOPMENT

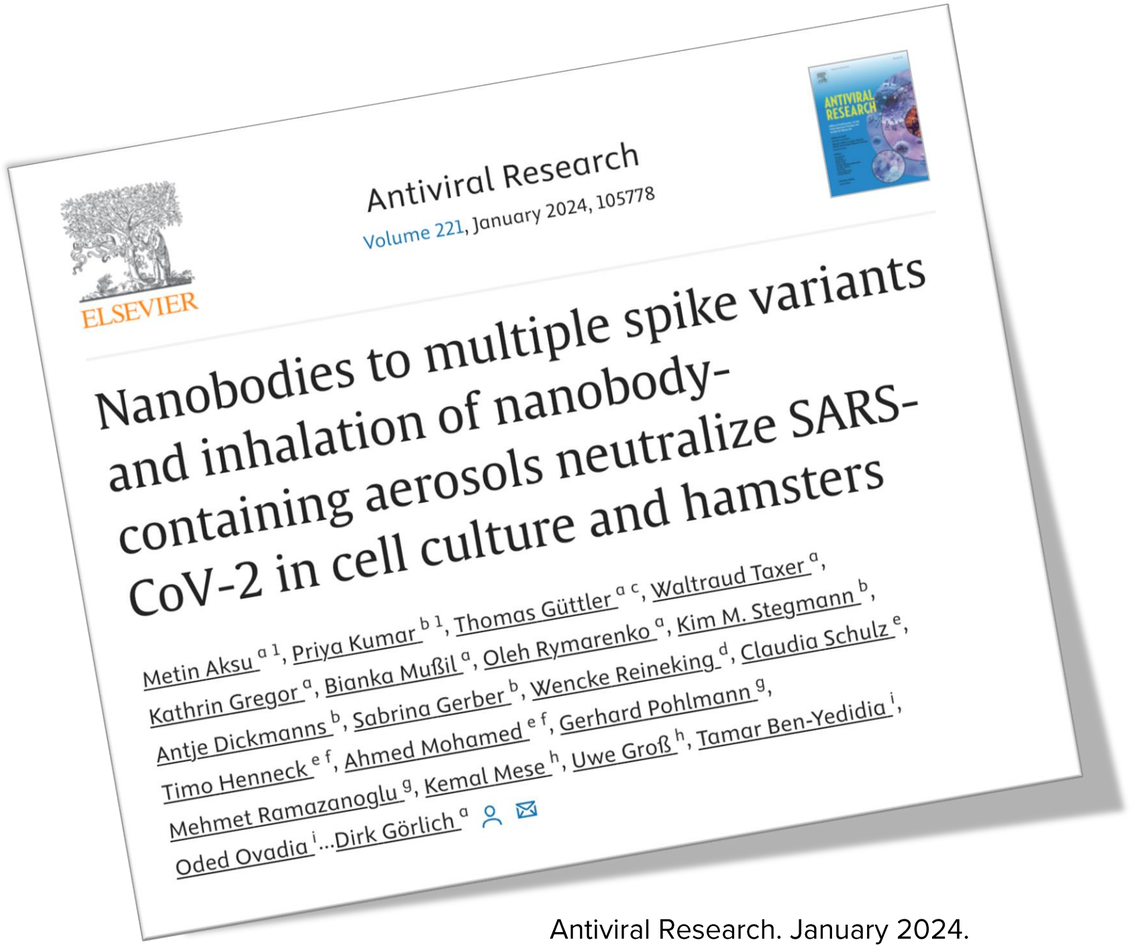
NanoAbs feature a favorable path to market compared to risks associated with traditional drug development

Source of Risk	NanoAb	
Molecular Target	✓	Validated by existing but sub-optimal mAb therapies
Mechanism of Action	✓	Well understood
Composition of Matter	**TBD**	Assessing safety & efficacy of alpaca-derived NanoAbs
Commercial	+	Strong demand for available mAbs and underserved populations

Validated Therapeutic Use
First commercial VHH-antibody is blood disorder therapy Caplacizuma – by Ablynx, a company acquired by Sanofi in 2018 for $4.8B

SUPERIOR ROUTES OF ADMINISTRATION

Proof-of-concept: Aerosolized NanoAbs



ELSEVIER

Antiviral Research

Volume 221, January 2024, 105778

Nanobodies to multiple spike variants and inhalation of nanobody-containing aerosols neutralize SARS-CoV-2 in cell culture and hamsters

Metin Aksu [a 1], Priya Kumar [b 1], Thomas Güttler [a c], Waltraud Taxer [a], Kathrin Gregor [a], Bianka Mußil [a], Oleh Rymarenko [a], Kim M. Stegmann [b], Antje Dickmanns [b], Sabrina Gerber [b], Wencke Reineking [d], Claudia Schulz [e], Timo Henneck [e f], Ahmed Mohamed [e f], Gerhard Pohlmann [g], Mehmet Ramazanoglu [g], Kemal Mese [h], Uwe Groß [h], Tamar Ben-Yedidia [i], Oded Ovadia [i]...Dirk Görlich [a]

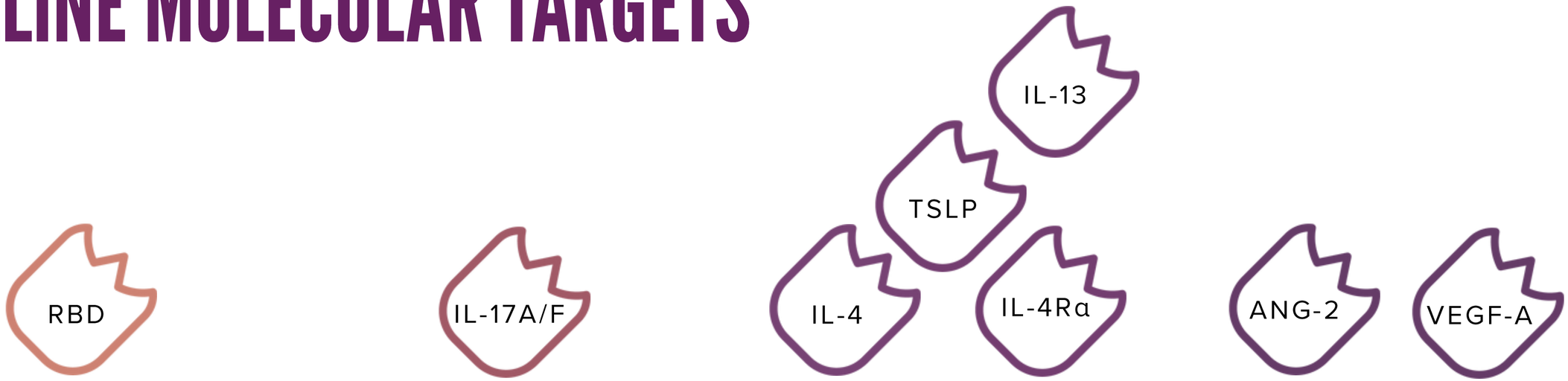
Antiviral Research. January 2024.
https://doi.org/10.1016/j.antiviral.2023.105778

Paper covers several aspects of Scinai's anti-COVID-19 NanoAbs, including:

- Structure
- Mechanism of action
- Neutralization of a wide range of SARS-CoV-2 variants including Omicron
- Production in yeast
- Formulation into aerosols

Describes in vivo studies indicating that "exposing hamsters to these aerosols, before or even 24 h after infection with SARS-CoV-2, significantly reduced virus load, weight loss and pathogenicity," concluding that these results show the significant potential of aerosolized NanoAbs for the prevention and treatment of coronavirus infections.

PIPELINE MOLECULAR TARGETS



COVID-19

- Strong in vivo data for inhaled therapeutic and prophylactic

PSORIASIS, PSA, HS

- Single compound targeting IL-17A and IL- 17F and IL-17AF
- Novel local use
- Larger target population than the one addressed by mAbs such as Cosentyx or Taltz and Siliq

ASTHMA, ATOPIC DERMATITIS

- Large commercial potential
- Novel routes of administration: e.g. Inhalation for asthma and/or ID for Atopic Dermatitis
- Larger target population than addressed by mAbs such as Nucala, Xolair or Dupixent

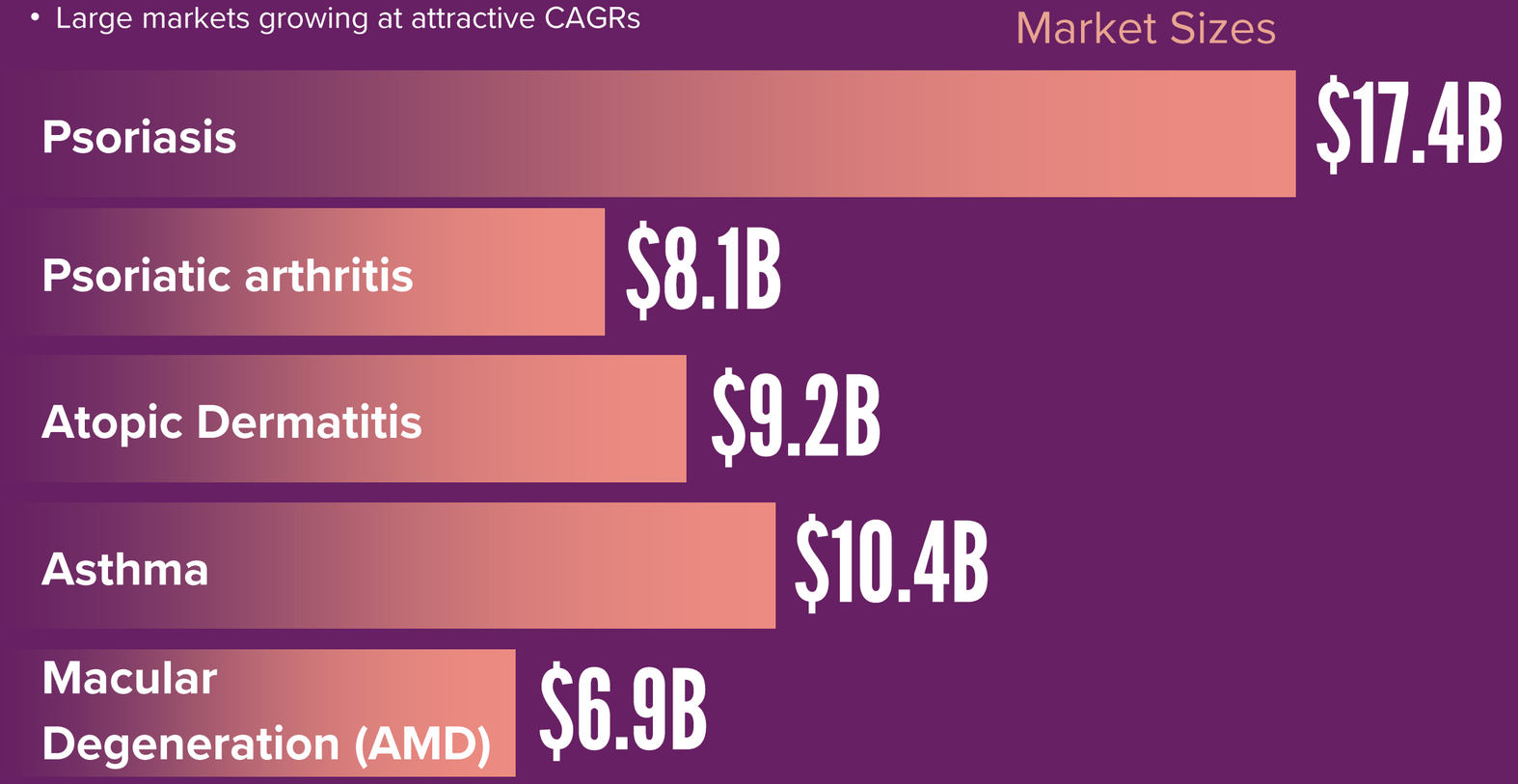
WET AMD

- Targets well-validated
- Limited development competition
- Large commercial opportunity

PIPELINE ADDRESSING LARGE MARKETS WITH UNDERSERVED NEEDS

Autoimmune

- Validated targets of existing mAb treatments
- Short time to value generation, lower risk than mAbs
- Large markets growing at attractive CAGRs



Respiratory Infectious Diseases

- Common diseases (e.g. COVID-19, Influenza)
- Platform potential for response to emerging pandemic pathogens

Source: GlobalData, 7 major markets (US, 5EU, Japan) 2023 estimates

PIPELINE DEVELOPMENT: STATUS & UPCOMING MILESTONES

Anti-IL-17 psoriasis treatment in-vivo proof-of-concept in 2024, clinical trial H1 2025

Indication	Molecular Target	Drug Discovery (Max Planck)						Toxicology	Clinical Phase 1/2
		Alpacas Immunized	VHH Antibody Selected	Clones Generated	Manufacturing Process & Analytical Method Development	In vitro / Ex vivo	In Vivo Proof-of-Concept		
Covid-19 Therapeutic	RBD							Ready for Partnering	
Covid-19 Prophylactic	RBD							Ready for Partnering	
Psoriasis, PSA, Atopic Dermatitis, HS	IL-17A, F, AF							Est. Q4 2024	Est. H1 2025
Asthma, Atopic Dermatitis	IL-4Ra IL-13 IL-4 TSLP								Est. 2025/6 Est. 2025/6 Est. 2025/6
Wet AMD	VEGF-A ANG-2								TBD TBD

Est. – Estimated timing

R&D STRATEGIC GUIDING PRINCIPLES

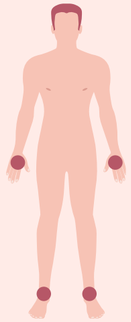
- Inflammation and Immunology
- Platform: NanoAbs
- Research Collaboration Agreement (RCA) with MPG/UMG
- CMC activities done in-house using Scinai's CDMO business unit
- Leverage learnings, Route of Administration experience
- Partner with multinational pharma companies
- Commercial manufacturing

PSORIARIS: 78% UNDERSERVED POPULATION

Mild to moderate patients underserved by current treatments

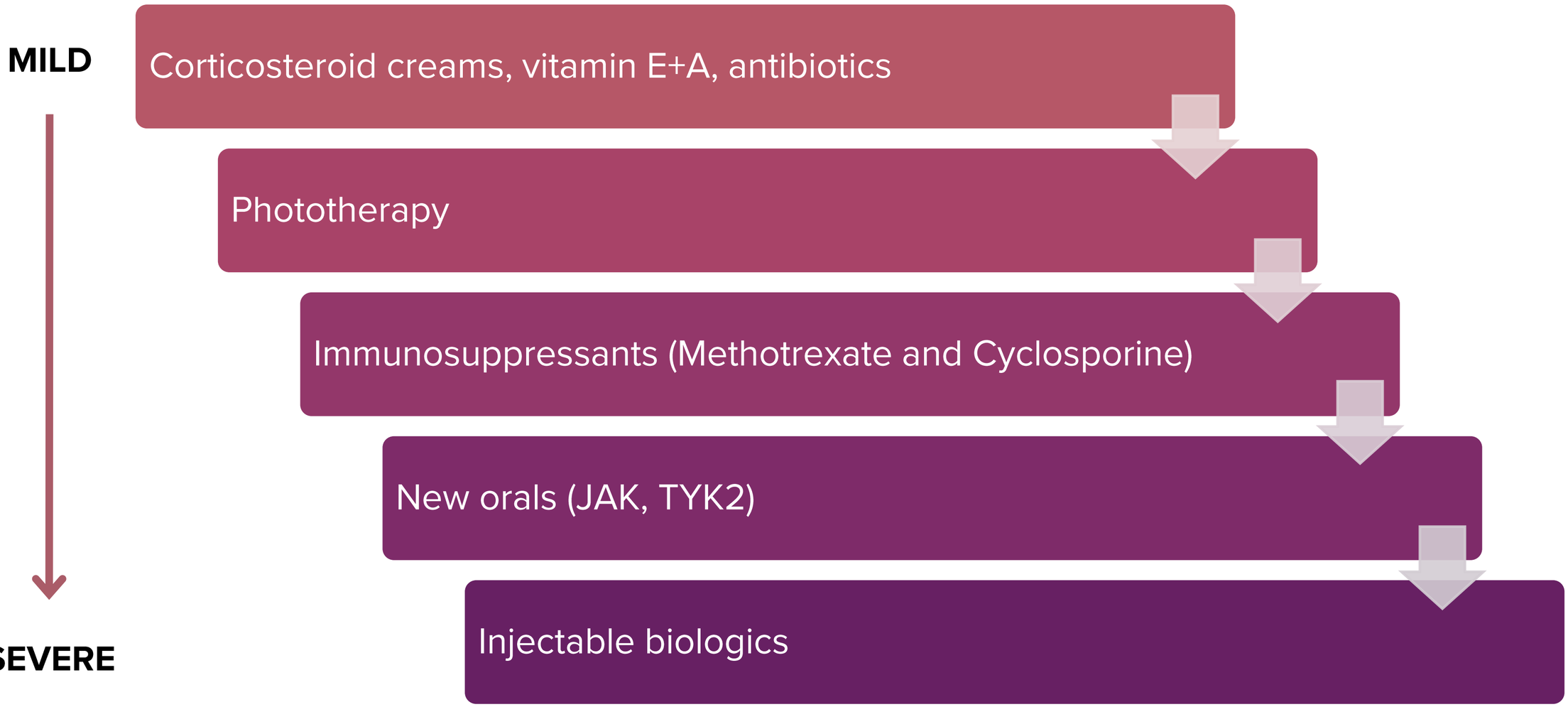
- 125 million patients, including 15.7 million in the 7 major markets (US, EU5 and Japan); 80-90% is plaque psoriasis
- Current biological therapies targeted only to moderate & severe patients, administered systemically
- Mild patients may suffer from considerable and visible lesions which may be uncomfortable, painful, and impact social and mental well-being
- Mild patients are ineligible for biological treatments; and moderate psoriatic patients are often reluctant to receive systemic biological treatments due to side effects and costs

Psoriasis prevalence and severity

MILD	MODERATE	SEVERE
		
50% **of patients.**	**28%** **of patients.**	**22%** **of patients.**
<3% of the body Typically occasional effect on quality of life e.g. aesthetic discomfort	3-10% of the body Generally affects quality of life	>10% of the body Typically has a severe impact on quality of life

Sources: Canadian Psoriasis Network; National Psoriasis Foundation; https://link.springer.com/article/10.1007/s13555-021-00518-8

CURRENT PLAQUE PSORIASIS TREATMENTS



NANOABs ADDRESS UNMET NEED

Designed to be convenient, safe, affordable, effective biologic for mild and moderate patients

Current treatment shortcomings

Corticosteroids

- Side effects include:
  - Skin thinning (bruising) & Lightening of skin color
  - Development of tolerance

Phototherapy

- Requires 20-35 sessions, 3 times a week

Immunosuppressants

- E.g. Methotrexate (5.8M prescriptions in the USA in 2020) and Cyclosporin (2.2 million prescriptions) come with concerns for health risks and adverse effects

New Orals (JAK, TYK2)

- Expensive
- Limited efficacy (lower than Biologics)
- Systemic and chronic, with systemic side effects

Injectable Biologics (mAbs)

- Limited to moderate-to-severe patients
- Very expensive
- Systemic and chronic; Increased risk of developing comorbidities such as cardiovascular disease, metabolic syndrome, psychological illness (suicidal thoughts), inflammatory bowel disease, obesity

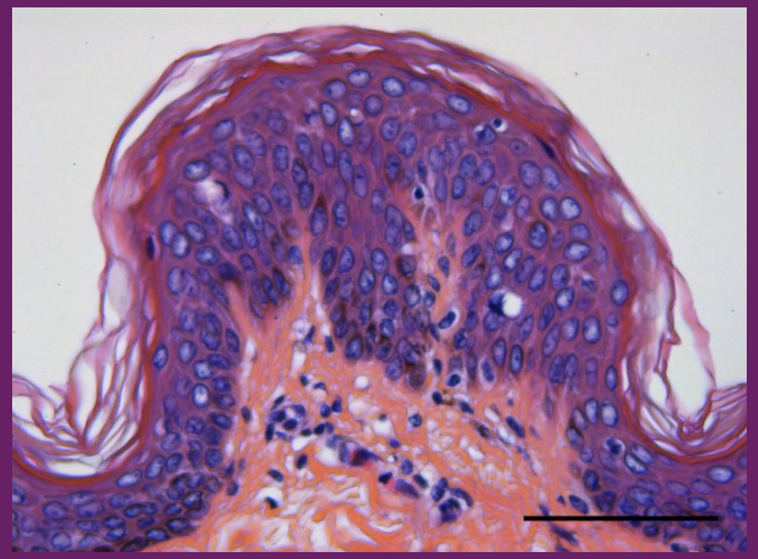
WHY DEVELOP AN ANTI-IL-17 NANOAB?

Strong business and clinical potential for development and commercialization

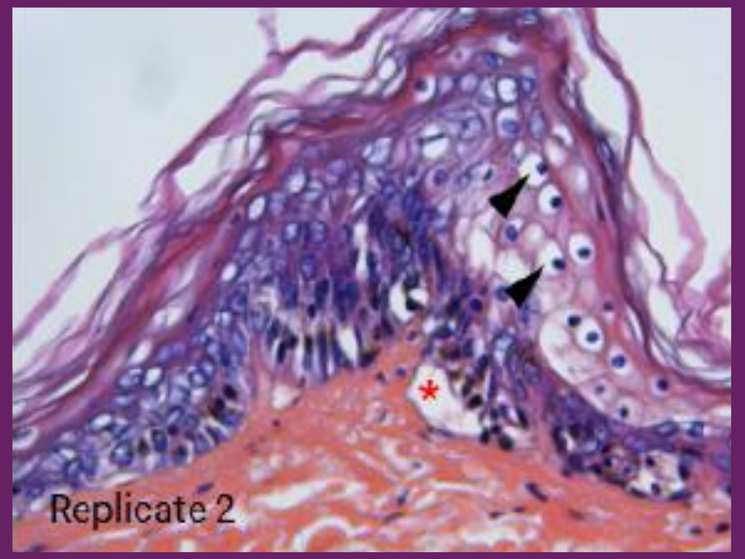
Success Factor	Rationale
IL-17 is a well-established psoriasis target	IL-17 as a molecular target in psoriasis is well understood and validated by existing therapies, e.g., Cosentyx, Siliq, Taltz and Bimzelx.
Antibodies targeting IL-17A and IL-17F isoforms are more effective in treating plaque psoriasis	IL-17 F is highly expressed in the skin. UCB's Bimzelx and MoonLakes' Sonelokimab both target IL-17A and F showed superior PASI 90 scores vs. anti-IL-17A only antibodies
There is clinical evidence of IL-17 being responsive to nanobodies in treating psoriasis	MoonLake's Sonelokimab showed positive Phase II results in treating patients with **moderate to severe** psoriasis
Specific physicochemical characteristics of our drug candidate make it optimal for treatment of **mild to moderate** psoriasis (78% of patients)	Most novel oral and biological treatments tend to focus on **moderate to severe** psoriasis segment, are administered every two weeks systemically (not locally); **Mild to moderate** patients seek local treatments that are specific, efficacious and safe and that do not require chronic use.

SCINAI'S NANOABS SHOWN TO IMPROVE PSORIATIC SKIN

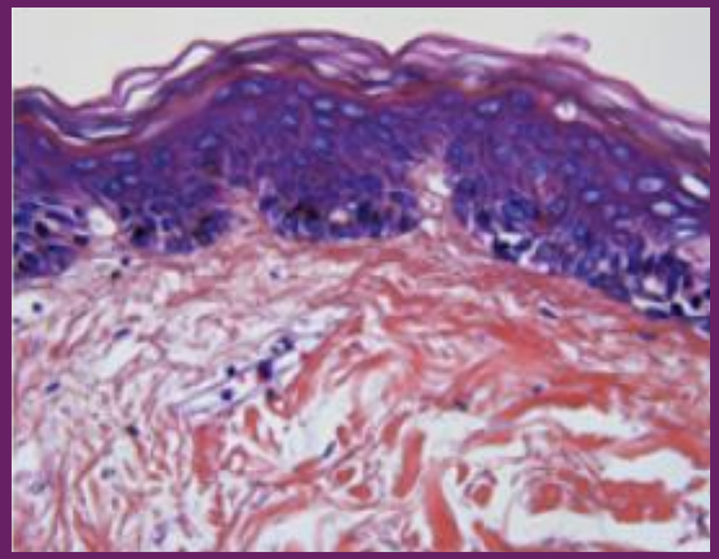
Ex-vivo study: Potential of anti-IL-17 NanoAb to effectively address mild to moderate plaque psoriasis



HEALTHY SKIN



PSORIASIS



AFTER NANOAB TREATMENT

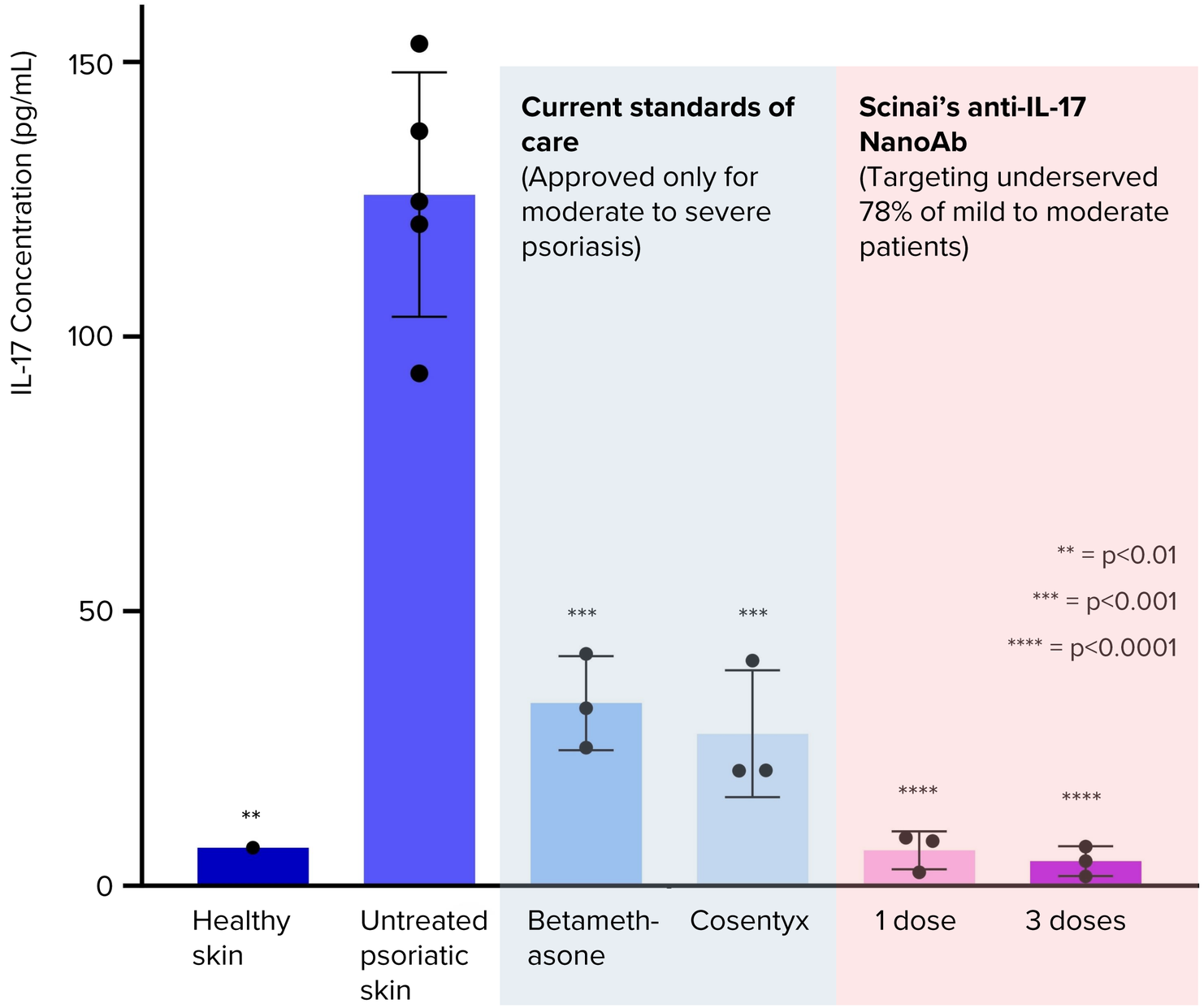
- Skin viability and structural integrity noticeably improved
- Significantly reduced IL-17 release ($p<0.001$) as compared to the untreated control
- Histopathology demonstrated improved skin structure following a single dose

Study conducted by Genoskin, in their proprietary human skin models induced for expression of plaque psoriasis symptoms

EX-VIVO PROOF OF CONCEPT: NANOABS SHOWN TO BLOCK IL-17

Similar impact as current leading treatments Betamethasone and Cosentyx

Designed to be safer, more convenient



SCINAI'S ANTI-IL-17 NANOAB THERAPEUTIC POTENTIAL

TECHNION
Israel Institute
of Technology

Scinai's NanoAbs displayed "potential as anti-inflammatory agents in psoriasis, particularly in improving skin viability and structure."

Genoskin study results indicated that just a single dose "might have been potent enough to block all IL-17, effectively 'shutting down' the immediate flare-up. This immediate response suggests a direct and effective inhibition of the existing IL-17 cytokines."

Professor Amos Gilhar, dermatologist
Technion Israel Institute of Technology
Head of Skin Research Laboratory

Professor Gilhar was not involved in this ex-vivo study but has been contracted by Scinai to conduct an in-vivo study

PSORIASIS IN-VIVO STUDY: RESULTS IN Q2'24

What is being studied?

Impact of psoriasis treatments on in-vivo xenograft mouse model of human skin.

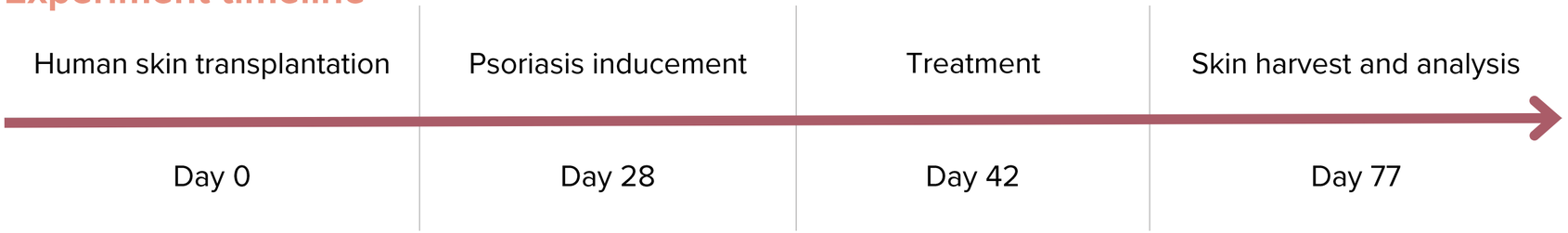
Why is it important?

Genoskin's ex-vivo study showed Scinai's anti-IL-17 NanoAb reduces IL-17 and improves skin appearance. This study will help measure *duration* of treatment effectiveness compared to current standards of care and provide additional safety information.

IN VIVO POC: HUMAN XENOGRAFT SKIN MOUSE PSORIASIS

Animal model: Normal human skin will be engrafted into SCID BEIGE mouse and disease will be induced by injection of IL-2 activated PBMC's from psoriatic patients

Experiment timeline



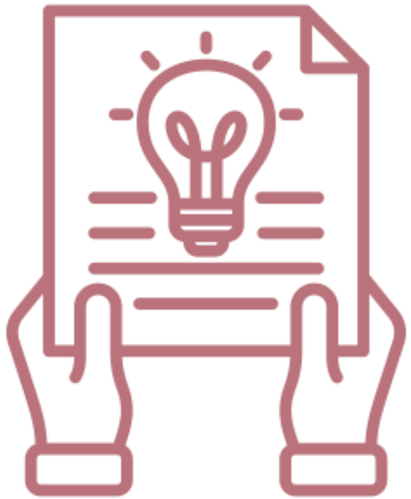
Major outcome measures

- Epidermis thickness scoring
- Immunohistochemical analysis
- Analysis for IL-17 in mouse serum

Proposed study design

#	Role	Compound	Route	Frequency	Follow up period	N
1	Negative control	Irrelevant VHH	ID	Once a week for 3 weeks	2 weeks	8
2	Positive control - model	Dexamethasone	Topical	Twice/day for 5 weeks	NA	8
3	Positive control – comparable antibody	Cosentyx or Bimekizumab	SC	Once a week for 3 weeks	2 weeks	8
4	Positive control – standard of care for mild to moderate	Betamethasone	Topical	Twice/day for 3 weeks	2 week	8
5	Scinai's NanoAb	Test item high dose	ID	Once a week for 3 weeks	2 weeks	8
6	Scinai's NanoAb	Test item high dose	ID	Every other day	2 weeks	8
7	Scinai's NanoAb	Test item high dose	ID	Once	2 weeks	8

IP STATUS ANTI IL-17 NANOAB



Status
- Priority patent application: Filed Dec. 28, 2022
- International patent application (PCT): Filed December 27, 2023

Covers
- The patent application encompasses novel VHH antibodies directed against IL-17 isomers and their use for therapeutic and diagnostic applications. The VHH antibodies, characterized by specific sequences, can block the IL-17A and -F that are on the critical path for Psoriasis and other diseases.

Exclusive license
- Scinai has exclusive license from the Max Planck Society for worldwide development and commercialization.

BOUTIQUE CDMO SERVICES

De-risking Scinai's internal R&D investments by leveraging internal capabilities

ASEPTIC GMP MANUFACTURING SUITES

STATE-OF-THE-ART R&D AND QC LABORATORIES

PHARMA CMC EXPERIENCE

GMP MANUFACTURING AND R&D LABS

Industry standard aseptic facility:
Labs, cleanroom, warehouses, offices

- Analytical methods development combined with best-in-class **QC capabilities** and equipment
- Labs for **manufacturing process development** and scale-up allow for the implementation of quality by design and design of experiment principles
- **cGMP suites** for upstream fermentation, downstream purification, media and buffer preparations, formulation and aseptic automated filling of PFS & vials
- Designed to meet **FDA and EMA** regulatory standards
- Single-use equipment enables:
  - Adaptable manufacturing processes for a pipeline of different products
  - Quicker lead times
  - Faster time-to-market for new products

Scinai's 1850m^2 (20,000 sq.ft)
cGMP Biologics Manufacturing Facility | Jerusalem

FIRST TWO CDMO CLIENTS SIGNED Q4'23

We are excited about the collaboration between Voyager Medical Research and Scinai Bioservices. In our experience so far, **Scinai has demonstrated a very high level of professionalism combined with attention to detail and a positive team spirit**. We are looking forward to starting this part of our development with Scinai at our side.

OHAD LAVI, CEO
VOYAGER MEDICAL RESEARCH, LTD.

CDMO STRATEGIC GUIDING PRINCIPLES

Scinai's CDMO value proposition:

Experienced and professional team available to execute drug development projects at high-speed while adhering to high (EU) quality standards using new and modern equipment located in a well-maintained site, offered at competitive pricing attractive to young biotech start-ups

- Focus on serving Israel, Europe and USA
- Target services: Early-stage biopharma drug development projects from preclinical studies to clinical phase 2
- Target customers: Early-stage biotech companies at pre-clinical stage

CDMO EXPECTED CHALLENGES AND NEXT STEPS

Challenges:

- Cash flow
- Capital for investments
- Building a track record
- Developing a service provider culture for the CDMO BU

Focus areas:

- Expand the business beyond Israel into the EU and the USA
- Business development team, processes and systems
- Marketing and sales
- Operational excellence and service provider culture
- CAPEX projects

DEEP PHARMA EXPERIENCE & CAPABILITIES

30 STAFF MEMBERS

- 5 PhDs
- Manufacturing, engineering, technical R&D, upstream & downstream process development, QC, QA, clinical and non-clinical, procurement
- Outsourced finance, legal, regulatory

AMIR REICHMAN – CEO

Senior global pharma leadership positions: Pharmaceutical engineering & supply chain at GSK Vaccines, Belgium; Large projects building vaccine manufacturing sites in Belgium, Italy, Germany, Hungary & US; NeuroDerm (R&D); Novartis Vaccines (Global Supply Chain).

DR. TAMAR BEN-YEDIDIA – CSO

Co-invented and guided vaccine candidate through 8 clinical trials including pivotal Phase 3. PhD from Department of Immunology, Weizmann Institute of Science.

ELAD MARK – COO

Led scale-up, tech transfer, manufacturing of recombinant proteins in China, mAbs for Novartis Singapore. Principal bioprocess engineer; Novartis (Technical Project Manager – Process).

DR. DALIT WEINSTEIN-FISCHER – VP TECHNICAL R&D

Leadership roles at Merck kGaA Israel. Directed Biological Processes at NanoSpun Technologies Ltd. and CTO at VAYU Sense AG, specializing in improving bio-based fermentation processes with an AI-based controller. Led the Natural Biotechnology Systems Department at Sigma Aldrich. PhD Molecular Genetics and Microbiology.

BOARD BRINGS SIGNIFICANT EXPERTISE

NORTH AMERICA

Mark Germain, Chairman
Aentib Group (Managing Director). Founder, director, chairman, and/or investor in over 20 biotech companies including Alexion, Incyte, Neurocrine, Ariad, ChromaDex.

Samuel Moed, Director
Bristol Myers Squibb (NYSE: BMY) (Senior Vice President, Corporate Strategy)

Adi Raviv, External Director
Experienced in Wall Street investment banking; Capacity Funding LLC (Principal)

Jay Green, External Director
Glaxo SmithKline (NYSE: GSK) Global Vaccines (Senior Vice President Finance and CFO), Gavi (Advisor for COVAX)

ISRAEL

Amir Reichman, CEO
NeuroDerm Ltd (Senior Scientist), Novartis Vaccines USA (R&D and Global Supply chain), GSK Vaccines Belgium (Global Supply Chain and Global Engineering)

Morris C. Laster, Director
BioLineRx (CEO, Director), OurCrowd (Partner), Clil Medical (CEO), Vital Spark (CEO), Kitov Pharmaceuticals (Co-founder, Director)

Yael Margolin, PhD, External Director
Gamida Cell Ltd. (Nasdaq: GMDA) (President, CEO, Director), Denali Ventures LLC (VP)

Avner Rotman, PhD, Director
Biodar (CEO), Rodar (Founder)

SELECT FINANCIALS & CAP TABLE

Nasdaq: SCNI

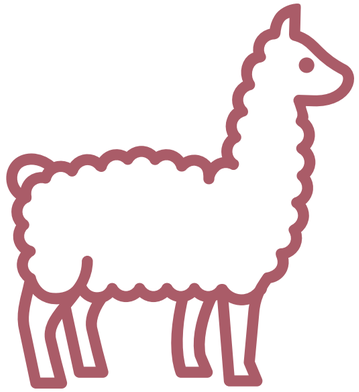
ORDINARY ADS OUTSTANDING	4,814,425
Pre-funded warrants	1,121,552
$5 warrants (Expire 16 Dec 2025)	140,000
$0.65 warrants (Expiry 2027)	2,920,000
$0.81 warrants (Expiry 2027)	87,600
$1.45 warrants (Expiry 2028)	68,793
$0.65 warrants (Expiry 2029)	2,293,104
$0.81 warrants (Expiry 2029)	68,793
Abeyance shares	2,435,552
ESOP Options + RSUs	535,723
OPTIONS, WARRANTS AND RSUS	9,671,117

Updated: Jan. 15, 2024

- $6.4M cash as of Sep 30, 2023
- $1.7M gross raised Dec 29, 2023
- €24M European Investment Bank (EIB) loan payable Dec 31, 2031

SIGNIFICANT POTENTIAL FOR VALUE CREATION

- Pipeline of NanoAb-based drugs
- Promising preclinical results
- Preparing for first-in-human clinical trial of anti-IL-17 NanoAb
- Collaboration with Max Planck and UMG
- Targeting diseases with large underserved needs and attractive commercial opportunities
- CDMO business unit buffers R&D risk



NASDAQ: SCNI

www.scinai.com

JANUARY 2024

SCINAI IMMUNOTHERAPEUTICS

Contact:

Joshua Phillipson

Investor Relations

ir@scinai.com

+972-8-930-2529