



SCiNAI

IMMUNOTHERAPEUTICS

CORPORATE PRESENTATION | APRIL 2024 | NASDAQ: SCNI

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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 maintain its listing on Nasdaq and its 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

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

2023

2024

BUSINESS DEVELOPMENT

- Launched Scinai Bioservices CDMO
- Capital infusions
- New name, new brand

- More CDMO clients
- Pursue partnerships

TWO COMPLEMENTARY BUSINESS UNITS

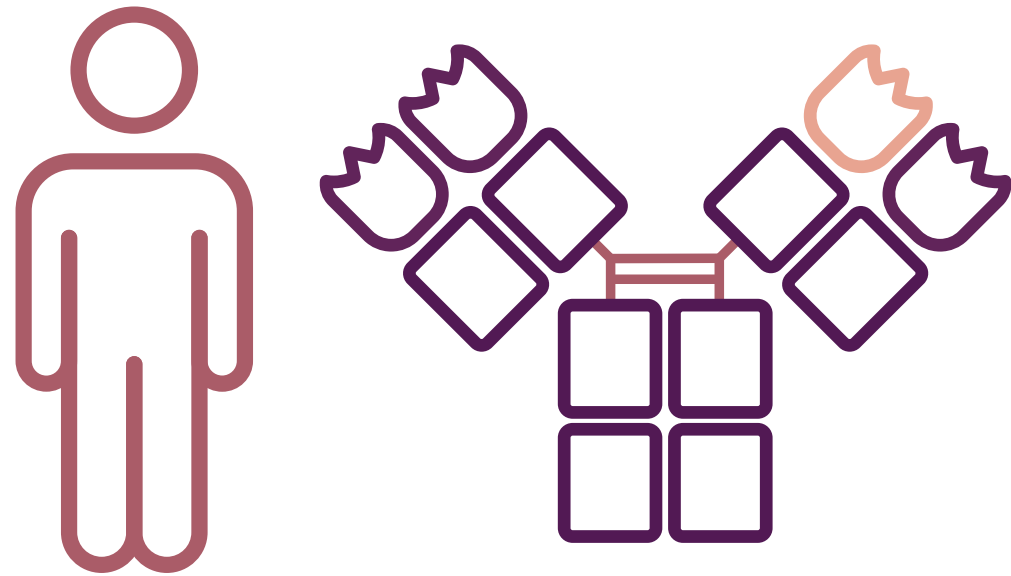


Development of inflammation and immunology (I&I) biological therapeutic products beginning with pipeline of nanosized VHH antibodies (NanoAbs) targeting diseases with large unmet medical needs

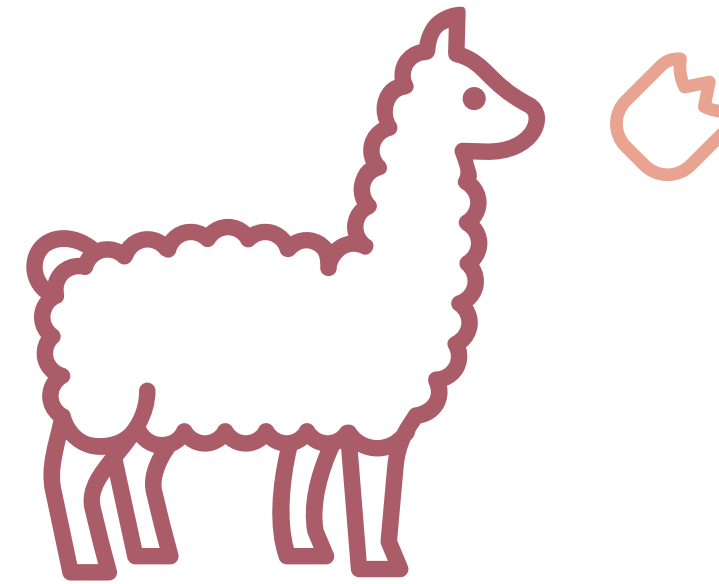


End-to-end boutique CDMO services to help bring products to market by leveraging Scinai's GMP and non-GMP drug development and manufacturing capabilities

NANOSIZED ANTIBODY PIPELINE: HUGE OPPORTUNITY



HUMAN ANTIBODY (mAb)



ALPACA-DERIVED ANTIBODY (NanoAb)

Alpaca-derived nanosized antibodies (NanoAbs) are also known as VHH antibodies or nanobodies¹
mAb therapeutic market size is ~\$205 billion² 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 & UMG¹ 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

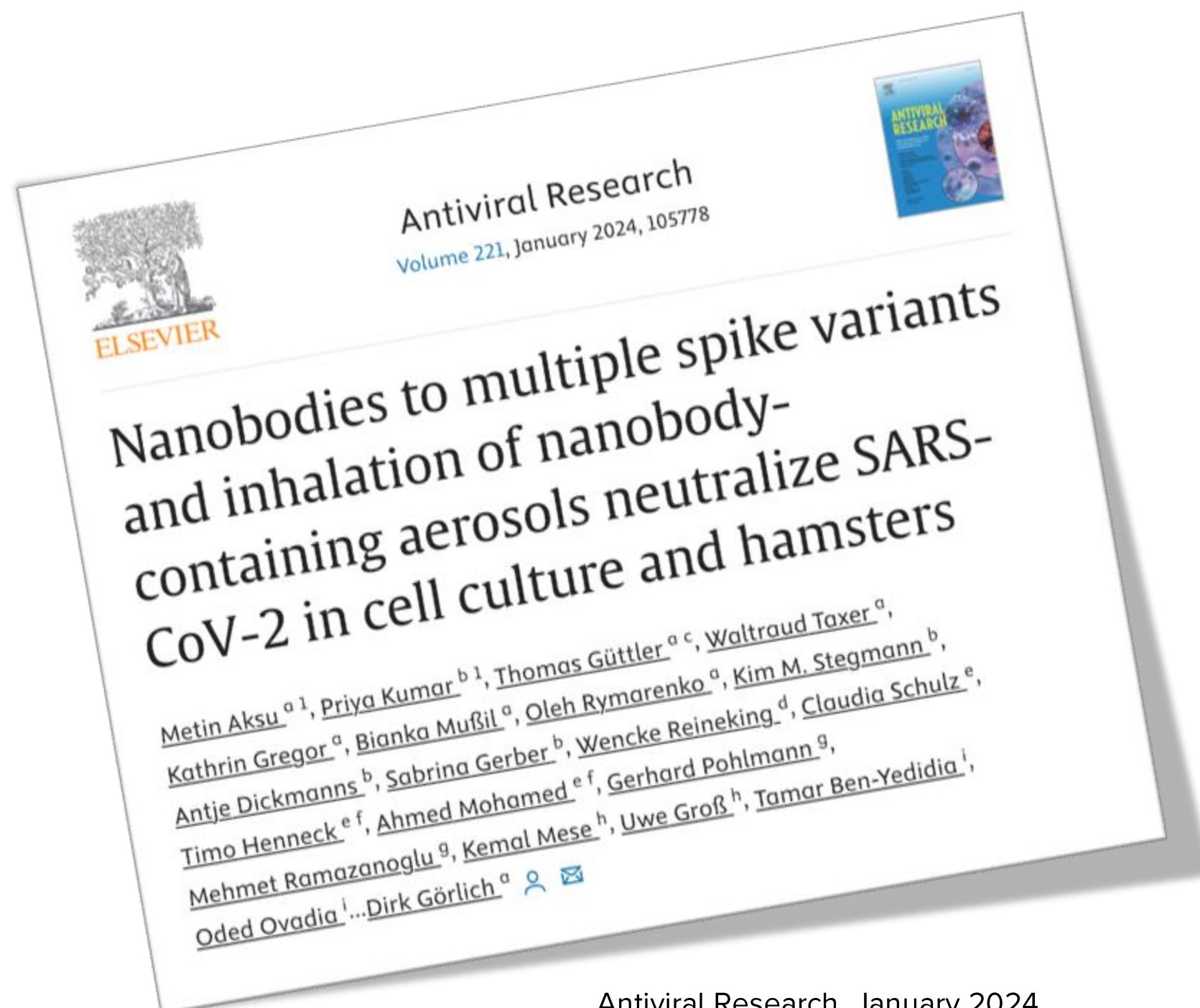
| Source of Risk | NanoAb | |
|-----------------------|---|--|
| Molecular Target |  | Validated by existing but sub-optimal mAb therapies |
| Mechanism of Action |  | Well understood |
| Composition of Matter | TBD | Assessing safety & efficacy of alpaca-derived NanoAbs |
| Commercial |  | Strong demand 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 for treatment and prevention of viral infectious diseases



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.

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

PIPELINE MOLECULAR TARGETS



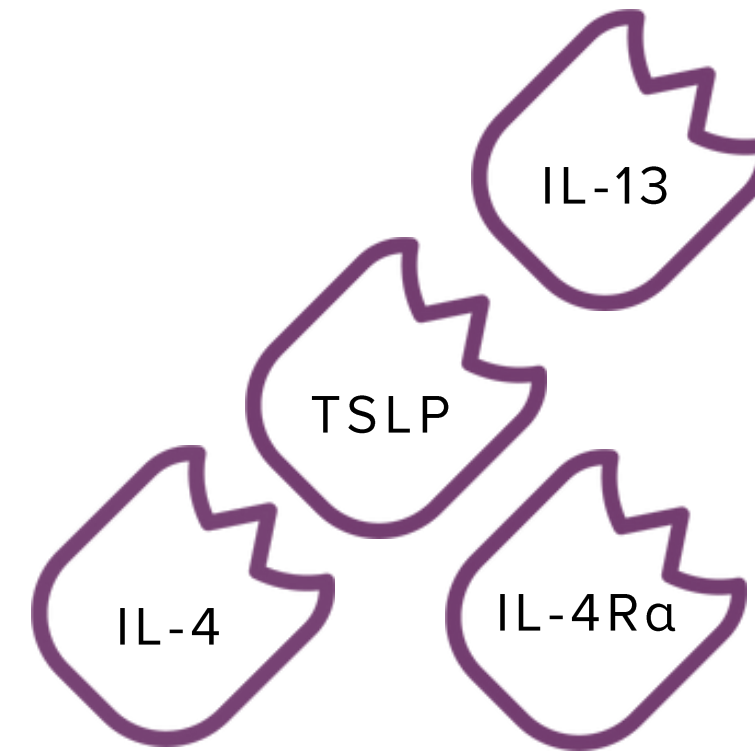
COVID-19

- Strong in vivo data for inhaled therapeutic and prophylactic in a challenge study conducted with Fraunhofer ITEM and TiHO



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

- Potential for various bi-specific combinations
- Potential for novel routes of administration (e.g. Inhalation or ID) in addition to systemic SC
- Huge potential for best in class
- Larger target population than SOC



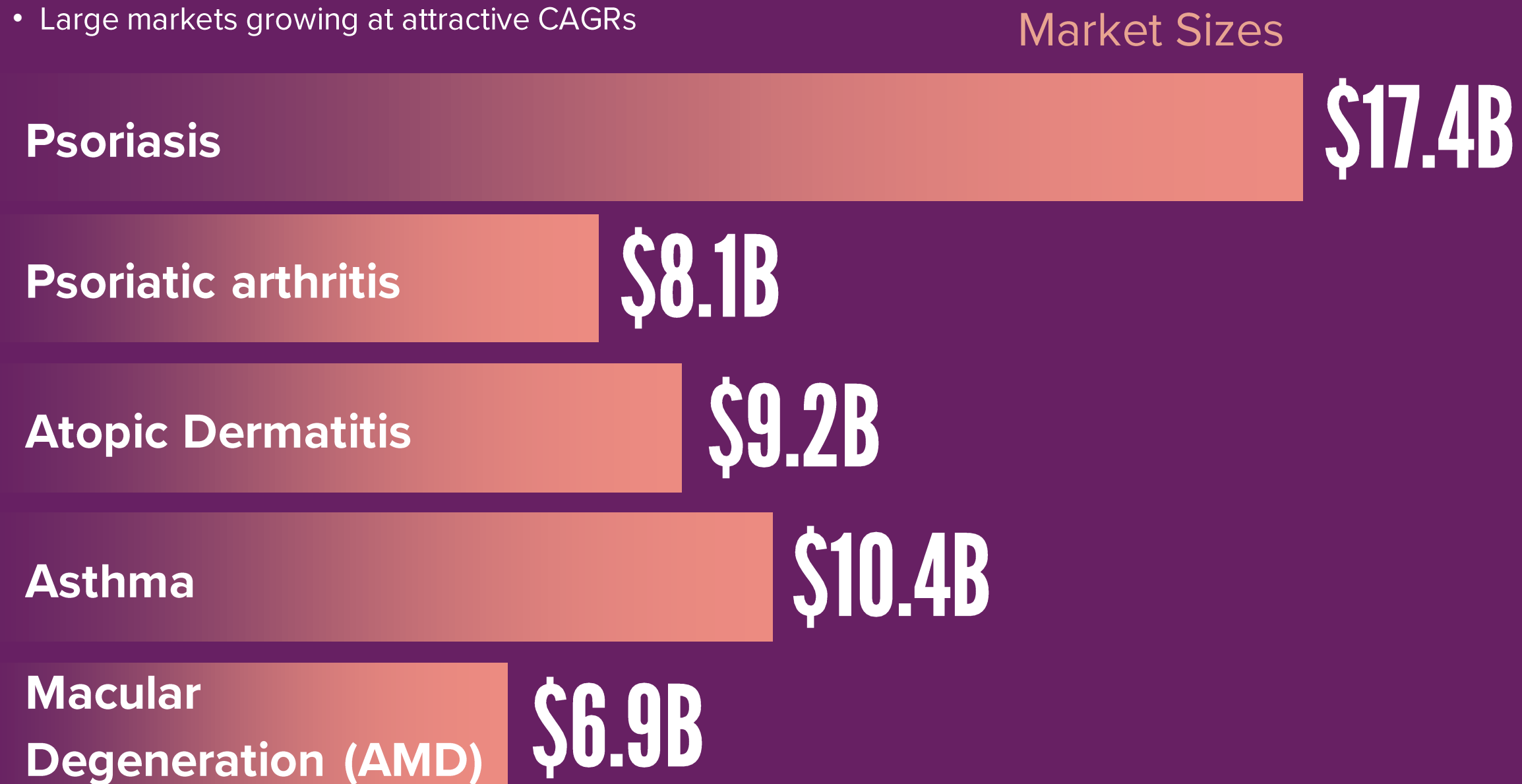
WET AMD

- 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) | | | Manufacturing Process & Analytical Method Development | In vitro / Ex vivo | In Vivo Proof-of-Concept | Toxicology | Clinical Phase 1/2 |
|---------------------------|---------------------------------|-----------------------------|-----------------------|------------------|---|--------------------|--------------------------|----------------------|---|
| | | Alpacas Immunized | VHH Antibody Selected | Clones Generated | | | | | |
| Covid-19 Therapeutic | RBD | [Progress bar: 100%] | | | | | | Ready for Partnering | |
| Covid-19 Prophylactic | RBD | [Progress bar: 100%] | | | | | | Ready for Partnering | |
| Psoriasis, PSA, HS | IL-17A, F, AF | [Progress bar: ~85%] | | | | | | Est. Q4 2024 | Est. H1 2025 |
| Asthma, Atopic Dermatitis | IL-4Ra IL-13 IL-4 TSLP | [Progress bar: ~50%] | | | | | | | Est. 2025/6 Est. 2025/6 Est. 2025/6 |
| Wet AMD | VEGF-A ANG-2 | [Progress bar: ~25%] | | | | | | | TBD TBD |

Est. – Estimated timing

R&D UNIT STRATEGIC GUIDING PRINCIPLES

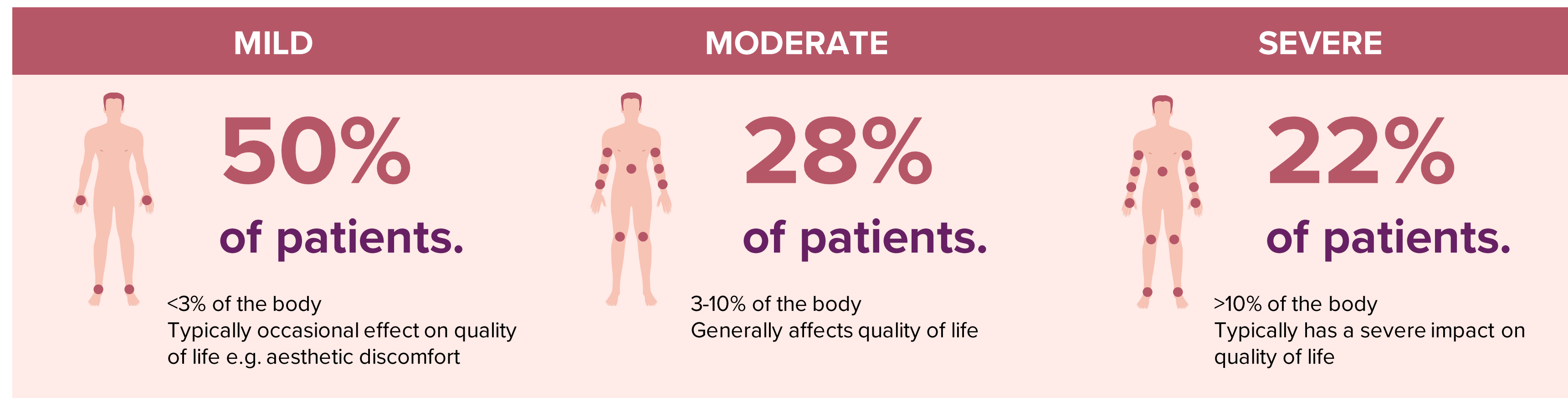
- Inflammation and Immunology
- Platform: NanoAbs
- Research Collaboration Agreement (RCA) with MPG/UMG
- CMC activities done in-house using Scinai's CDMO business unit
- Leverage learnings, Route of Administration experience
- Partner with multinational pharma companies early:
 - To validate science and strategy
 - To support phase 3 and commercial launch in strategic territories.
 - To provide capital for next in line pipeline program
- Commercial manufacturing post MA:
 - At a CMO for Scinai's territories post launch
 - Build a commercial scale site (commence CAPEX in 2030)

PSORIASIS: 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



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

CURRENT PLAQUE PSORIASIS TREATMENTS

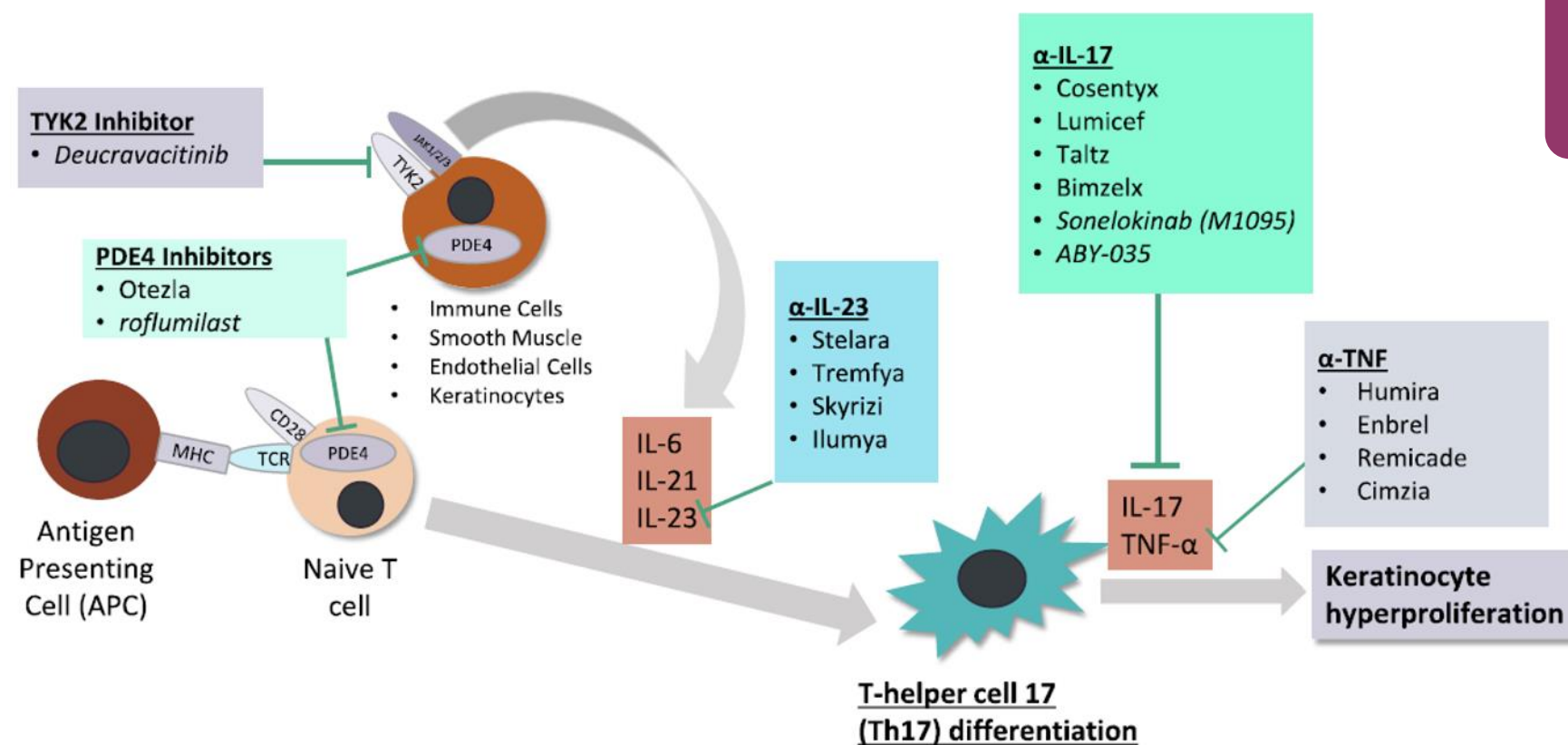
Corticosteroid creams, vitamin E+A,
vitamin D derivatives

Phototherapy

1st line systemic immunosuppressants
(Methotrexate and Cyclosporine) &
Immunomodulators (Otezla)

2nd line systemic Immunomodulators
(e.g. Sotyktu)

Injectable biologics (anti- TNF α , IL-17,
IL-23)



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

1st line systemic immunosuppressants & Immunomodulators

- 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. Otezla (PDE4 Inhibitor) has limited efficacy and requires daily dosing.

2nd line systemic Immunomodulators (e.g. Sotyktu)

- 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 side effects such as psychological illness (suicidal thoughts) and inflammatory bowel disease.

Why do we need more?

Credit:
Prof. Michael P. Schön, Department of Dermatology, Venereology and Allergology
Lower Saxony Institute of Occupational Dermatology, University Medical Center Göttingen, Germany
<https://hautklinik.umg.eu>

- Not all patients achieve complete clearance (PASI90 or PASI100) and some suffer from recalcitrant lesions that do not respond adequately
- Some patients have psoriasis in difficult-to-treat areas such as hands, feet, scalp, genitals...
- Even mild patients can suffer considerable burden of disease when they have lesions in visible or sensitive areas still cause. Yet, they are not eligible for systemic therapy (biologics and JAK inhibitors - only moderate-to-severe disease)
- Individual preferences

Hard-to-treat lesions: scalp

Credit:
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<https://hautklinik.umg.eu>



Visible areas with high burden of disease: face

Credit:
Prof. Michael P. Schön, Department of Dermatology, Venereology and Allergology
Lower Saxony Institute of Occupational Dermatology, University Medical Center Göttingen, Germany
<https://hautklinik.umg.eu>



Hard-to-treat lesions: hands

Credit:
Prof. Michael P. Schön, Department of Dermatology, Venereology and Allergology
Lower Saxony Institute of Occupational Dermatology, University Medical Center Göttingen, Germany
<https://hautklinik.umg.eu>



Sensitive areas with high burden of disease: ano-genital region

Credit:
Prof. Michael P. Schön, Department of Dermatology, Venereology and Allergology
Lower Saxony Institute of Occupational Dermatology, University Medical Center Göttingen,
Germany
<https://hautklinik.umg.eu>



pat. #9



pat. #12

Special locations: navel and nipples

Credit:
Prof. Michael P. Schön, Department of Dermatology, Venereology and Allergology
Lower Saxony Institute of Occupational Dermatology, University Medical Center Göttingen, Germany
<https://hautklinik.umg.eu>



Navel with psoriasis

pat. #13



pat. #14

Right nipple healthy



Left nipple with psoriasis

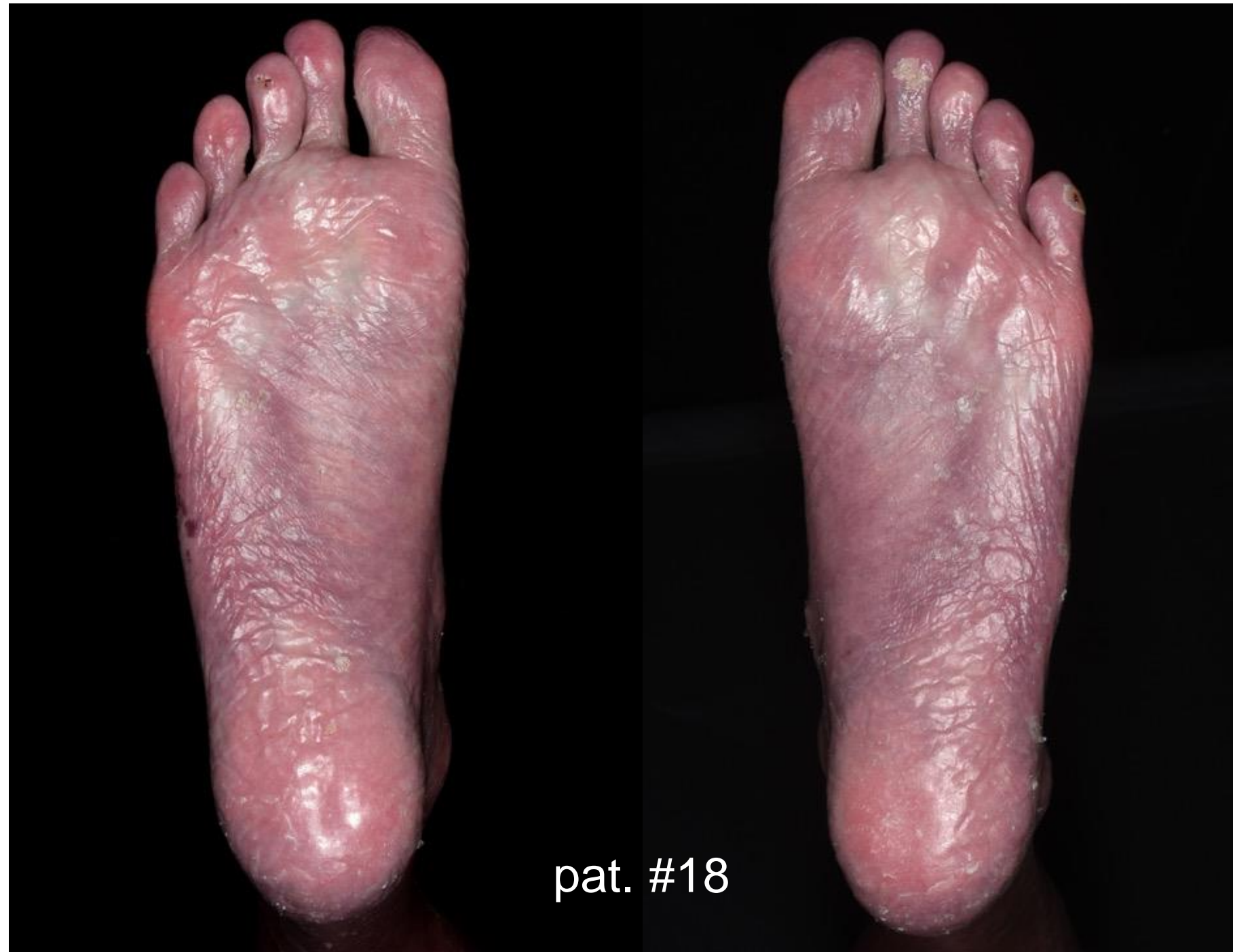
Recalcitrant isolated lesions

Credit:
Prof. Michael P. Schön, Department of Dermatology, Venereology and Allergology
Lower Saxony Institute of Occupational Dermatology, University Medical Center Göttingen, Germany
<https://hautklinik.umg.eu>



Pretreated lesions with therapy side effects: soles

Credit:
Prof. Michael P. Schön, Department of Dermatology, Venereology and Allergology
Lower Saxony Institute of Occupational Dermatology, University Medical Center Göttingen, Germany
<https://hautklinik.umg.eu>



After treatment with Corticosteroids



Before treatment with Corticosteroids

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. |

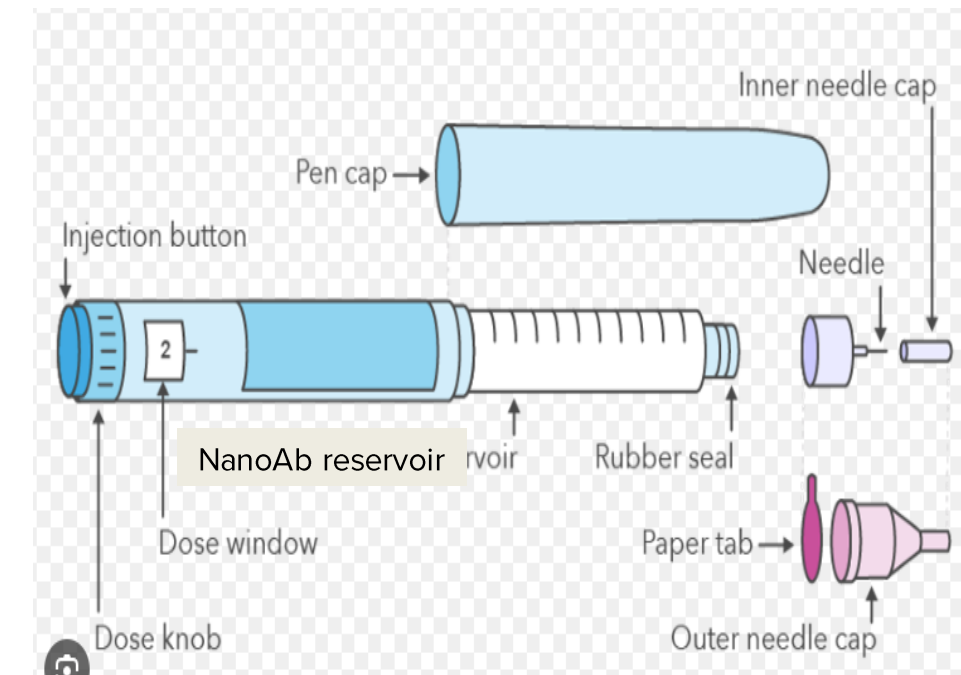
Local ID injection of Anti-IL-17A/F VHH antibody fragment

- **A novel way to using VHH antibodies** - Most other entities working with VHHs (nanobodies®) aim to mimic mAbs “playbook” and hence are competing for the same patient populations and are using the same routes of administration.
- **Making biologics available for the mild to moderate patients:** Current biologics treatments are approved only for moderate to severe psoriasis patients since they are provided systemically and come with associated risks for severe adverse effects (e.g. infections, exacerbation of IBD, heart diseases). Scinai’s nanoAb is for local administration for local action. No systemic impact
- **Improves patient’s convenience** by sparing the need for twice a day application of creams and ointments that makes day to day activities cumbersome (e.g. wearing cloths after application or getting into bed without getting bed sheets dirty) or the need to attend three times a week a phototherapy center for 10 weeks long.

The product

An intradermal pen filled with a liquid, sustained release formulation of Scinai's anti-IL-17A/F nanoAb given every 3 to 6 months at the doctor's office.

- Upon a patient's visit, a reusable pen injector with a sterile cartridge filled with 1.5 to 3ml of Scinai's formulated nanoAb drug will be dispensed by the physician.
- A disposable and sterile ID needle of 1-2mm long will be mounted onto the pen
- The physician (or nurse) will apply the drug in aliquots of 30 microliters each (per "click") per 7 sq/cm.
- A pen will therefore be sufficient for 50/100 aliquots (50/100 clicks on the pen) depending whether a 1.5 or a 3ml pen was used covering up to 350/700 sq cm of skin.
- As the needle is short the injection will be painless.
- A session will be up to three pens per patient covering up to 10% of the skin surface of an adult's body.
- Such a session will last 5-10 minutes and will be required every 3 to 6 months depending on the clinical results



Generating incentives for the customers – the three P's

Patients: Mild to moderate plaque psoriasis patients.

- Currently treated with corticosteroids and are unhappy :
 - Inconvenience of use (e.g. twice a day, use of ointments/creams).
 - Development of tolerance
 - Development of side effects – thinning of the skin and changes in color of the skin.
- Cannot do phototherapy:
 - Location of lesion
 - Low compliance with phototherapy schedule
- Are pushing the physician to receive biologics
- Do not want to take daily systemic orals (Otezla or Sotyktu)
- Prefer a local, non painful treatment 2-3 times per year that saves daily treatments and at lower costs than once a month systemic biologics and without the risks of systemic immunosuppressants.

Providers

- Dermatologists
- Don't want to prescribe biologics off label to mild patients (risks).
- Prefer a solution that would allow them to charge for the visit, the drug dispensing and the injection.

Payers

- Prefer lower costs vs. systemic biologics especially when used off label
- Provide their clients a superior solution vs. corticosteroids and safer than systemic biologics at a lower deductible to the patient.

Where is the money?

| | 2030 | CAGR (2020–2030) |
|--|---------------------------|------------------|
| Drug Sales, Mild PsO (\$m) | \$ 1,841,500,335.5 | 12.1% |
| TNF inhibitors | \$ 123,915,881.2 | 0.4% |
| Enbrel (etanercept) | \$ 21,197,962.4 | -5.2% |
| etanercept biosimilar | \$ 17,987,481.0 | 31.2% |
| Humira (adalimumab) | \$ 31,022,633.0 | -8.8% |
| adalimumab biosimilar | \$ 50,177,132.4 | 58.9% |
| Remicade (infliximab) | \$ 1,940,221.9 | -3.4% |
| infliximab biosimilars | \$ 900,856.4 | 8.4% |
| Cimzia (certolizumab pegol) | \$ 307,903.1 | -0.5% |
| certolizumab biosimilars | \$ 381,690.9 | N/A |
| IL-12/IL-23 inhibitors | \$ 92,770,995.3 | 0.2% |
| Stelara (ustekinumab) | \$ 43,015,881.4 | -7.2% |
| ustekinumab biosimilars | \$ 49,755,113.9 | N/A |
| IL-23 inhibitors | \$ 540,126,396.7 | 19.7% |
| Tremfya (guselkumab) | \$ 395,863,978.0 | 26.8% |
| Ilumya (tildrakizumab) | \$ 44,223,187.6 | 9.9% |
| Skyrizi (risankizumab) | \$ 100,039,231.0 | 10.9% |
| IL-17 inhibitors | \$ 269,947,325.1 | 17.5% |
| Cosentyx (secukinumab) | \$ 63,619,131.3 | 3.8% |
| secukinumab biosimilars | \$ 32,516,667.7 | N/A |
| Taltz (ixekizumab) | \$ 28,460,732.8 | 11.9% |
| ixekizumab biosimilars | \$ 6,159,350.6 | N/A |
| Siliq (brodalumab) | \$ 1,514,817.9 | 8.0% |
| Bimzelx (bimekizumab) | \$ 63,359,429.7 | N/A |
| sonelokimab (M1095) | \$ 42,537,922.2 | N/A |
| izokibep/ABY-035 | \$ 31,779,272.9 | N/A |
| PDE4 inhibitors | \$ 233,629,627.9 | 10.3% |
| Otezla (apremilast) | \$ 141,509,024.3 | 4.9% |
| generic apremilast | \$ 86,829,302.6 | N/A |
| roflumilast | \$ 5,291,301.0 | N/A |
| AhR Agonists | \$ 4,511,596.3 | N/A |
| tapinarof | \$ 4,511,596.3 | N/A |
| Kinase inhibitors | \$ 259,505,982.9 | N/A |
| Deucravacitinib (BMS-986165) | \$ 259,505,982.9 | N/A |
| NF-kappa B inhibitors | \$ 63,077,343.7 | N/A |
| tepilamide fumarate/PPC-06 | \$ 63,077,343.7 | N/A |
| Other Systemic therapies | \$ 130,772,138.5 | 14.2% |
| Methotrexate | \$ 1,537,772.3 | -0.6% |
| Cyclosporine | \$ 34,459,452.4 | 0.5% |
| Piclidenoson | \$ 94,774,913.9 | N/A |
| Topical therapies | \$ 123,243,047.9 | 0.9% |
| Wynzora (calcipotriene + betamethasone dipropionate) | \$ 1,253,390.2 | N/A |
| generic calcipotriene + betamethasone dipropionate | \$ 15,497,482.0 | 0.9% |
| Rx Topical Corticosteroids | \$ 60,251,381.7 | 0.8% |
| Rx Vitamin D derivatives | \$ 31,849,172.6 | 0.8% |
| Rx Vitamin A/Retinoid derivatives | \$ 14,391,621.4 | 0.6% |

- Total sales of drugs in the 7MM for mild psoriasis expected to be \$1.8B in 2030
- \$1.3B is expected to come from prescription of biologics and \$259M from TYK2 inhibitor
- This is the market where the topicals and phototherapy do not help.
- This is the unmet need, which represents approx. 300K monthly prescriptions of expensive drugs not planned for use with mild patients
- Pay attention that topicals and immunosuppressants sell altogether \$250M annually in the 7MM.

Source: GlobalData

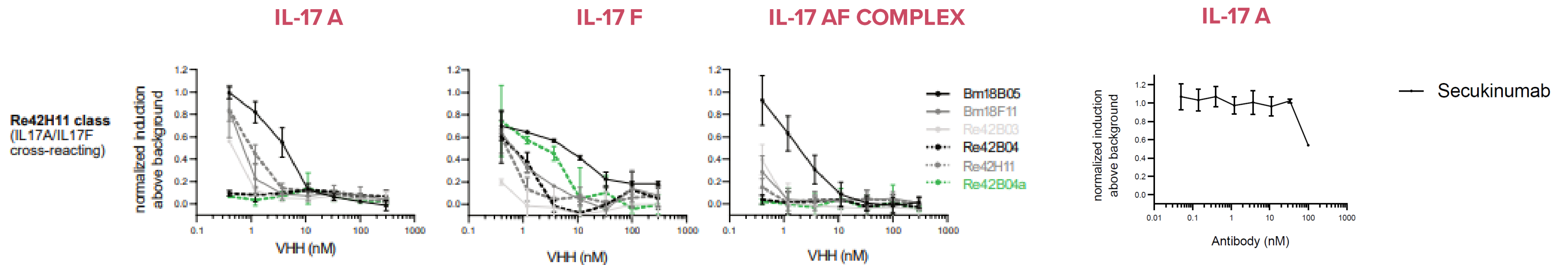
Anti-IL-17 Nanoab: A better neutralizer

Single NanoAb neutralizes IL-17 A, F, and AF complex

Whereas the affinity for NanoAb is comparable to that of Cosentyx (for IL-17A), the neutralization shows a significantly better efficacy of the NanoAb Neutralization assays

| Cytokine | NanoAb | Secukinumab* |
|----------|--------|--------------|
| IL17A | 0.56nM | 0.2nM |
| IL17F | 1.00nM | μM |
| IL17AF | 0.25nM | 2.0nM |

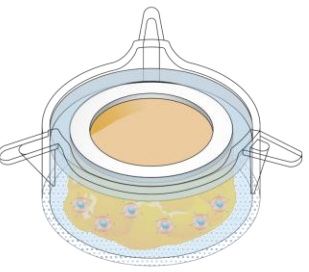
* Cosentyx, INN-sekukinumab(europa.eu)



Mode of Action:

By Blocking IL-17, the interactions with the IL-17 receptors expressed on keratinocytes, fibroblast-like synoviocytes, endothelial cells, chondrocytes and osteoblasts downstream cascade of events in the epidermis and expression of Psoriasis-related markers is avoided.

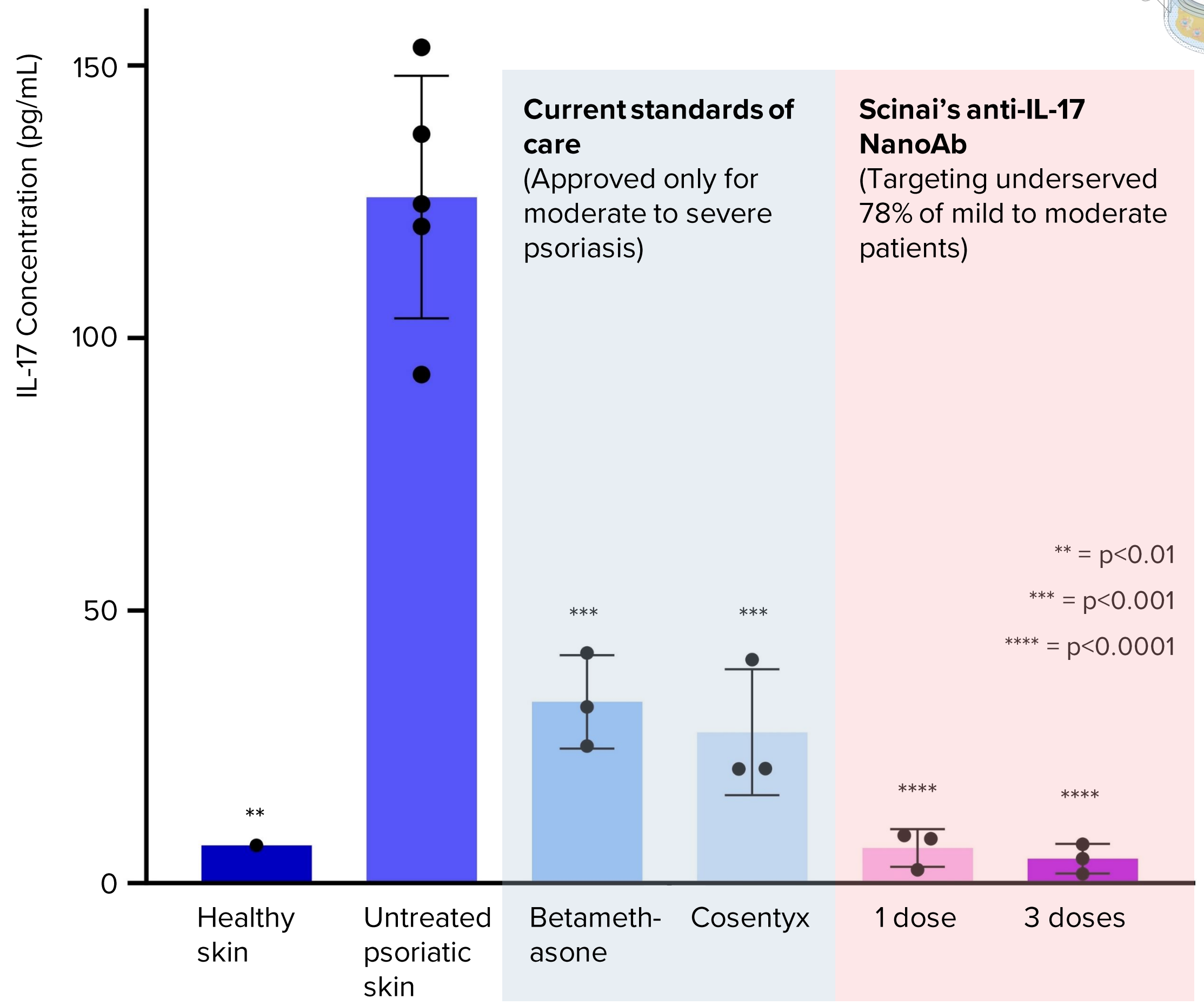
The NanoAb neutralizes IL-17 isoforms at nM concentrations, x100 better than the mAb



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

Impact of ID injected nanoAb in comparison to current leading treatments Betamethasone and Cosentyx

Designed to be local, less frequent use, safer, more convenient and more affordable



Preliminary PK: limited systemic exposure

PK Study design

Healthy mice were injected ID with biotinylated anti IL-17 nanoAbs, blood samples removed periodically post administration.

Limited systemic exposure will contribute to safety

T1/2 in the dermis is ~6h, in the blood - ~2h

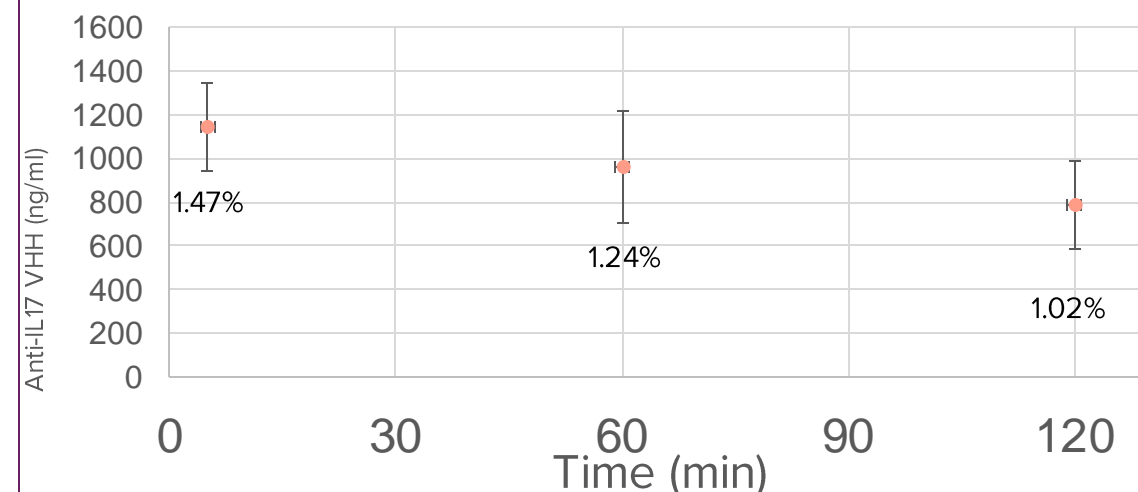
Nanoabs' presence in dermis was measured by digital morphology analysis. In plasma their presence was measured by Bio-Layer Interferometry (BLI) using Octet.

Implications:

2 potential modes of action:

1. An acute and efficient blockage of IL-17 can shut down the downstream inflammatory cascade. Hence a single local injection of the NanoAb without sustained release formulation will suffice. The next flare up will appear independently, possibly few months later.
2. A prolonged pressure on the inflammatory process is needed to block the cascade, hence, a longer local exposure of the IL-17 blocking nanoAb will be achieved by formulating the injected NanoAb in a slow-release formulation.

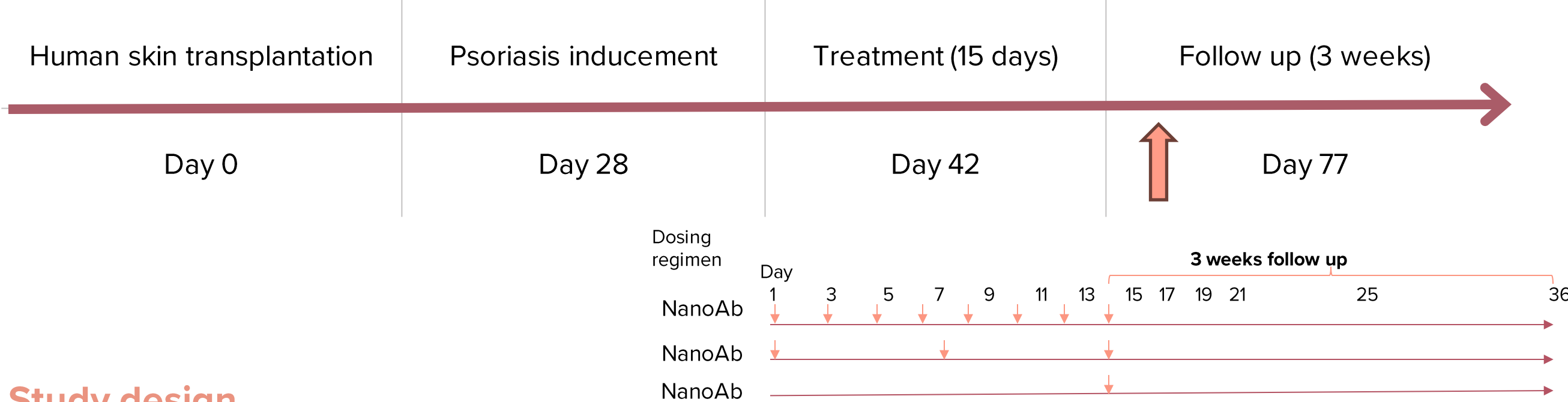
Minimal % NanoAb in the plasma upon ID administration



In vivo PoC: Human xenograft skin (1/2)

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



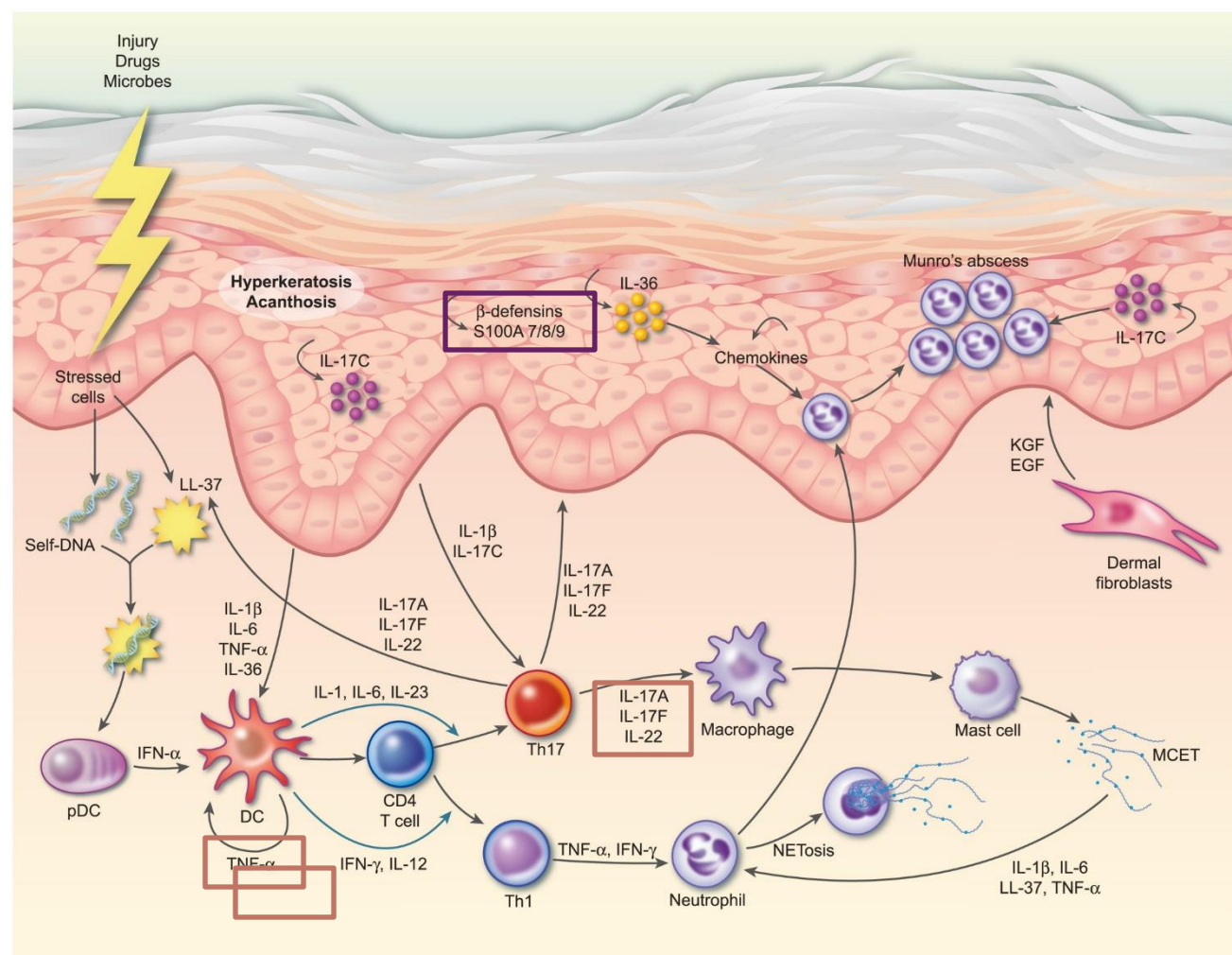
Study design

| # | Role | Compound | Route | Frequency | Follow up | 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 | 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 | Every other day | 2 weeks | 8 |
| 6 | Scinai's NanoAb | Test item high dose | ID | Once a week for 3 weeks | 2 weeks | 8 |
| 7 | Scinai's NanoAb | Test item high dose | ID | Once | 2 weeks | 8 |

Major outcome measures

- Epidermis thickness scoring
- Macroscopic evaluation
- Immunohistochemical analysis of Psoriasis markers

In vivo PoC: Human xenograft skin (2/2)



Source: IL-17 in inflammatory skin diseases psoriasis and hidradenitis suppurativa - Fletcher - 2020 - Clinical & Experimental Immunology - Wiley Online Library

What is being studied? The impact of local psoriasis treatments by efficacy parameters:

- ✓ Clinical evaluation by medical photographs.
- ✓ Macroscopic evaluation, epidermis thickness scoring & Histological analysis.
- ✓ IHC analysis for Ki-67, (proliferative marker of keratinocytes).
- ✓ IHC analysis: HLA-DR (High DR characterizes Psoriasis), epidermal human beta-defensin-2 (BD-2 serum levels correlate with IL-17A and PASI, it is decreased after IL-17A blockade).
- ✓ Psoriasis (S100A7), CD8 & CD4 (increase in inflammation), IL-17, IL-22 (parallel to IL17), TNF-a, CD31 (angiogenesis marker)
- ✓ Results expected in Q2 2024



IL-17 nanoAb program summary

- There is a need for a better treatment for patients with mild to moderate Psoriasis and for specific lesions that are hard to treat with current therapies.
- Biological drugs are the safest and most efficient, yet – they are administered systemically and are expensive.
- Blocking IL-17A and IL-17F isoforms is an effective mechanism to control Psoriasis
- Scinai's NanoAbs, administered locally ID already showed superior neutralization of IL-17 in cell culture, and ex-vivo in human Psoriatic skin.
- Scinai's upcoming in vivo study will compare schedules of administration and show the duration of the therapeutic effect
- Next steps: Toxicology and First in Human clinical trial

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 1850m² (20,000 sq.ft)
cGMP Biologics Manufacturing Facility | Jerusalem



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

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.

SELECT FINANCIALS & CAP TABLE

Nasdaq: SCNI

| | |
|------------------------------------|-------------------|
| ORDINARY ADS OUTSTANDING | 5,811,419 |
| Pre-funded warrants | 336,000 |
| \$5 warrants (Expire 16 Dec 2025) | 140,000 |
| \$0.65 warrants (Expiry 2027) | 2,800,000 |
| \$0.81 warrants (Expiry 2027) | 87,600 |
| \$1.45 warrants (Expiry 2028) | 68,793 |
| \$0.65 warrants (Expiry 2029) | 2,413,104 |
| \$0.81 warrants (Expiry 2029) | 68,793 |
| Abeyance shares | 2,225,052 |
| ESOP Options + RSUs | 1,090,977 |
| SHARES + WARRANTS + OPTIONS | 15,041,738 |

Updated: April 25, 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

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

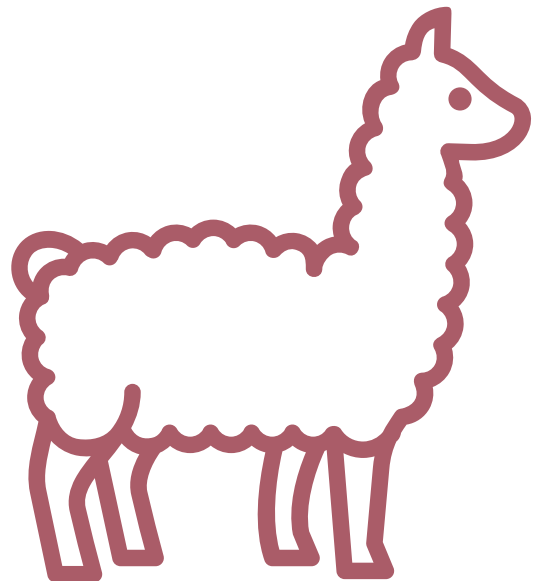
Gamida Cell Ltd. (Nasdaq: GMDA) (President, CEO, Director), Denali Ventures LLC (VP)

Avner Rotman, PhD, Director

Biodar (CEO), Rodar (Founder)

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

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