Non-invasive Approaches to **Precision** and **Personalized** Dermatology

DermTech
STRATUM

Precision Biomarker Platform Technology

DermTech's platform technology is bringing precision to the practice of dermatology through non-invasive assessment of the skin. Our proprietary technology can be used for biomarker analysis of RNA, DNA, protein, and microbiome.
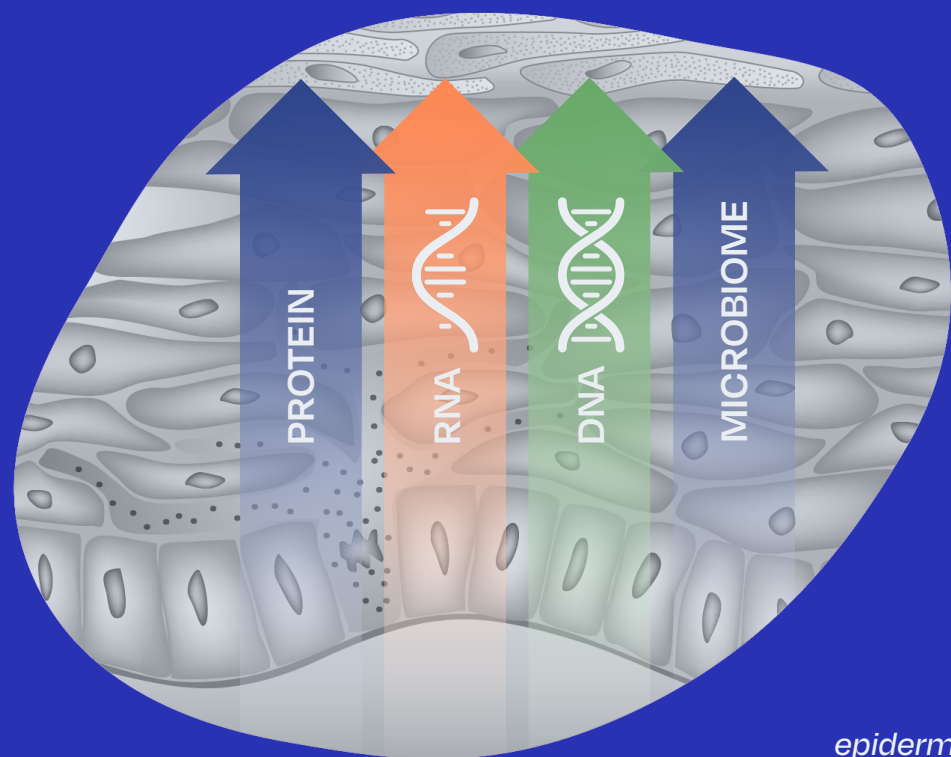
The Simplicity of the Smart Sticker™

PROTEIN

RNA

DNA

MICROBIOME

Illustration of epidermis cross-section

DermTech STRATUM.
Your translational medicine partner.

As we evolve the path into precision and personalized dermatology, the Smart Sticker™ offers the opportunity to non-invasively identify biomarkers of disease and subgroups of disease, stratify patients based on genomic and proteomic profiles, enrich for responders in a population, and predict and track responses to therapeutic intervention.

We offer expert services including:

- Biomarker Identification
- New Target Identification
- Patient Segmentation and Stratification
- Bioinfomatics Support

DermTech's validated platform technology is appropriate for indications where skin is the target or a surrogate target organ and is being used to support drug discovery and development programs focused on cancers and inflammatory diseases in clinical research studies.

The Simplicity of Smart Sticker
Eliminates need for surgical biopsy and collects 1.5mg of stratum corneum tissue capturing signatures from epidermal keratinocytes, T cells, dendritic cells, melanocytes etc.

Large collection area
Provides 19mm collection area for Lesional and Non-lesional samples.

Simple Sample Transport
Sample doesn't require fixation or refrigeration and preserves genomic and proteomic material from the skin for up to 10 days at room temperature & greater than a year when stored at -80C.

Precision Biomarker Analysis
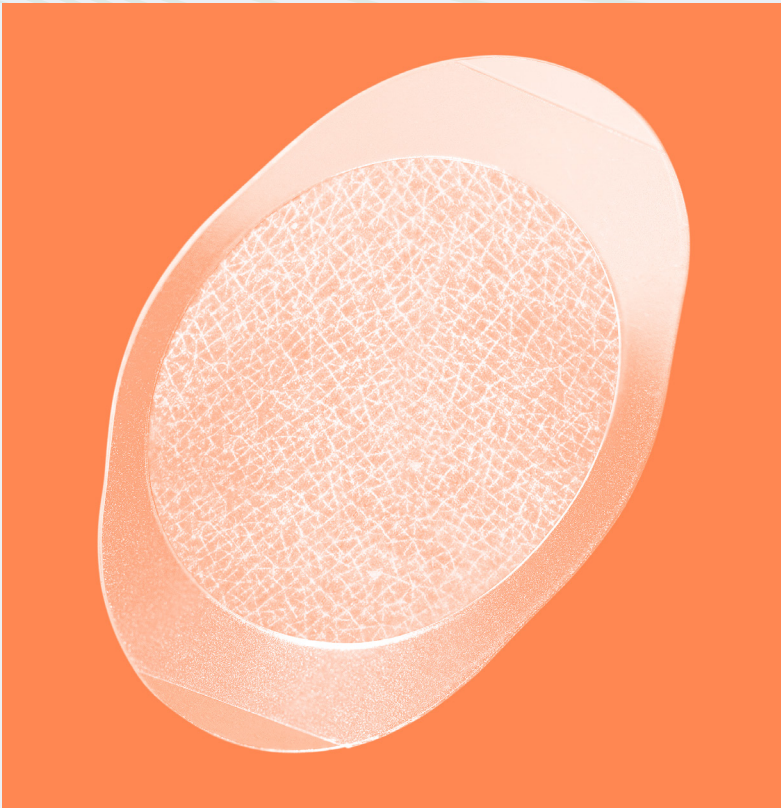Includes Microbiome, Proteomic, Lipidomic, NGS, and targeted DNA/RNA analysis.

Indications Include:

Actinic Keratoses
Alopecia Areata
Atopic Dermatitis
Basal Cell Carcinoma
Ewing Sarcoma
Follicular, Mantle Cell and B-Cell Lymphoma
GVHD
Hidradenitis Suppurativa

Lupus
Pemphigus
Psoriasis
Squamous Cell Carcinoma
T-cell Lymphoma
Vitiligo

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Precision Biomarker Publications

Stratification Based on Median Gene Expression in Lesional Psoriatic Skin

IL-17F
IL-22
IL-26

Normalized Gene Expression (High / Low)
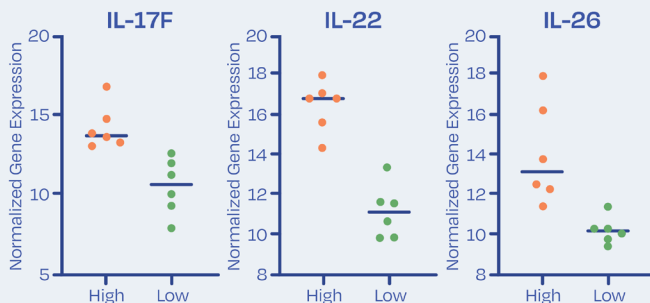
Genomic expression can inform treatment decisions and paradigms

Krueger et al. AAD 2017

Stratification Based on Biomarker Expression in Lesional Atopic Dermatitis Skin

% of Patients Expressing: CCL17, IL-4, IL-4Ra, IL-13, IL-13Ra1, IL-22, IL-23a, IL-31, TSLP
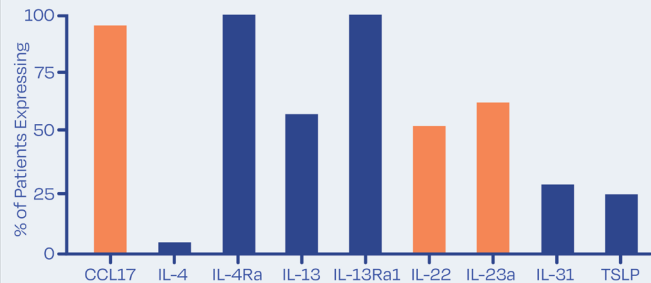
Non-invasively stratifying atopic dermatitis patients based on inflammatory genes

Journal of Investigative Dermatology Vol. 141: May 2021

Meet our Experts

Michael Howell, PhD, Chief Scientific Officer

Michael Howell is an immunologist with more than 20 years of experience in the government, academia, and the biopharma/biotech sectors. Prior to joining DermTech, Dr. Howell was a faculty member at National Jewish Health and held increasing positions of responsibility at Boehringer Ingelheim, MedImmune/AstraZeneca, and Incyte Corporation. Dr. Howell has previously led research and development teams dedicated to the discovery of novel therapies for dermatology and the integration of novel biomarker approaches including adhesive tape strips into clinical development. His efforts have led to the approval of multiple therapies, novel diagnostic approaches to patient treatment, and have been highlighted in more than 50 publications and numerous patents. Dr. Howell received his Ph.D. in Immunology from West Virginia University and completed his post-doctoral training at National Jewish Health.

John Whitaker, PhD, Director of Bioinformatics

Prior to DermTech, John held roles at UC San Diego, Janssen and, most recently, Denovo Biopharma where he led biomarker efforts. At Denovo, he identified a genetic biomarker that predicts response to Liafensine (anti-depressant) and incorporated novel biomarker approaches to increase the companies mechanistic understanding of therapies. At UCSD Dr. Whitaker developed machine learnings methods for genomics and helped produce the first draft of the human epigenome. Dr. Whitaker has published in top journals, including, Nature, Cell, Nature Methods and PNAS.