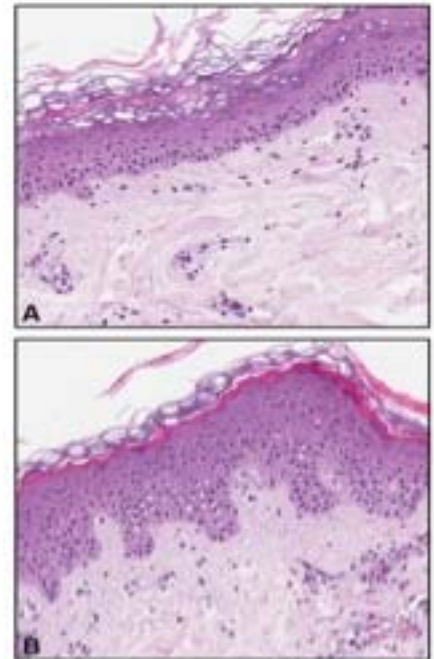


## HUMAN SKIN ORGAN CULTURE

- Multiple replicate cultures from each skin donor
- Viability and homeostasis maintained for weeks in culture
- Healthy skin, aged skin, photodamaged skin, psoriatic, diabetic skin etc.
- Can be used in conjunction with primary culture keratinocytes and fibroblasts from same donors
- Useful for early stage (pre-clinical) assessment of:
  - Skin toxicity, corrosivity, contact irritation, contact sensitization
  - Epidermal hyperplasia and skin thickening; Normal and abnormal differentiation and barrier function;
  - Skin atrophy / skin aging / prevention
  - Dermal effects: Collagen, proteoglycan and glycoprotein production and degradation, MMPs, MMP activation and inhibition, other proteinases
  - Fibroproliferative and fibrotic changes
  - UV-skin damage
  - Effects on hair follicles, sebaceous glands etc.
  - Mast cell biology, vascular biology, melanocyte biology
  - Skin immunology
- Organ-cultured skin useful for assessing cytokines, growth factors and other molecules of interest; Used for gene array and proteomic analysis; signaling pathway assessment
- Amenable to structural analysis: histology / cytology, immunohistology / immunofluorescence; and ultrastructure (TEM, SEM)
- Scientists at JV Biolabs have over 100 publications in use of this technology



**Organ-cultured human skin**  
**A:** After 8-days in culture, human skin maintains normal structure and function.  
**B:** Skin can be treated to induce epidermal hyperplasia. Anti-hyperplastic agents can be assessed in this model

*JV BIOLABS can help you evaluate your drug for biological activities in human skin while the drug is still in preclinical development.*