

## Product opportunities in topical treatment

Lipidor AB develops topical products based on its AKVANO® lipid based technology, offering unique product opportunities across dermatology, wound and skin care markets. AKVANO® technology is available to companies wishing to innovate, develop or improve new and existing products in areas like pharmaceuticals, biocides, cosmetics and medical devices. The versatility of the unique delivery system has enabled the successful incorporation of more than 100 structurally very different ingredients for many different applications in pharma, consumer healthcare and animal care. AKVANO is designed for local treatment, not for systemic delivery.

### REFORMULATION OF EXISTING PRODUCTS FOR TOPICAL TREATMENT

Examples of APIs used in prototype pharmaceutical formulations are:

- Antibacterial agents
- Antifungal agents
- Corticosteroids
- NSAIDs
- Analgesics
- Local anesthetics
- Antipsoriatic agents
- Anti-alopecia agents
- Anti-acne agents
- Wound healing agents
- Steroid hormones



### FORMULATION OF NEW CHEMICAL ENTITIES (NCEs) FOR TOPICAL TREATMENT

Lipidor supports originators, recognizing the features and benefits provided by the spray system, that want to the test New Chemical Entities in the AKVANO® delivery system.



After confirming the feasibility of the NCE incorporation in the AKVANO® delivery system as well as the desired benefits, a licensing agreement is signed in order to move the product forward.

## EXAMPLES OF SUBSTANCES SUCCESSFULLY INCORPORATED INTO AKVANO®

### Pharmaceuticals (APIs)

#### Antibacterials

Fusidic acid, sodium salt  
Mupirocin

#### Antifungals

Econazole nitrate  
Miconazole nitrate\*  
Terbinafine HCl  
Tolnaftate\*

#### Antiseptics

Benzalkonium chloride\*  
Chlorhexidine diacetate  
Chlorhexidine digluconate

#### Corticosteroids

Betamethasone dipropionate  
Betamethasone valerate  
Hydrocortisone\*  
Hydrocortisone acetate\*  
Mometasone furoate

#### Immunosuppressants

Cyclosporin A  
Tacrolimus

#### NSAIDs

Diclofenac diethylamine  
Diclofenac sodium  
Ibuprofen  
Indomethacin  
Ketoprofen  
Naproxen

#### Analgesics/ Antipruritics

Benzyl nicotinate  
Camphor\*  
Capsaicin\*  
Menthol\*  
Methyl nicotinate\*  
Methyl salicylate\*

#### Local Anaesthetics

Benzocaine\*  
Lidocaine HCl\*  
Lidocaine\*  
Prilocaine  
Tetracaine\*

#### Antipsoriatics

Calcipotriol  
Calcitriol  
Clobetasol propionate  
Tacrolimus

#### Anti-Alopecia agent

Minoxidil

#### Anti-Acne

Adapalene  
Clindamycin HCl  
Isotretinoin  
Lauric acid  
Niacinamide  
Salicylic acid\*

#### Wound Healing

Calcium pantothenate  
Dexpanthenol\*

#### Steroid Hormones

Estradiol

#### Other APIs

Cannabidiol  
Mirtazapine  
Oxymetazoline HCl\*  
Xylometazoline HCl\*  
Zolmitriptan

\* Included in FDA OTC monograph

### Other actives

Allantoin\*  
Aloe vera powder/flakes  
Aluminum chloride\*  
Avobenzone\*  
Bemotrizinol  
Benzalkonium chloride\*  
Citric acid\*  
Deet  
Diethylamino hydroxybenzoyl hexyl benzoate  
Dihydroxyacetone  
Eucalyptus oil\*  
Glycolic acid  
Lactic acid\*  
Lavender oil  
Menthol\*  
Octanediol  
Octisalate\*  
Octocrylene\*  
Oxybenzone\*  
Sesame oil  
Sodium lactate  
Thyme oil\*  
Urea  
Zinc phenolsulfonate