

Customised R&D Services

*Designing unique solutions for your
R&D needs*

**WE DESIGN, DEVELOP AND
VALIDATE NEW ACTIVE
INGREDIENTS**

Our R&D integrated solutions are adapted
to the client's needs



AntalGenics



About Us

AntalGenics is a biotechnology company focused on the discovery and development of new bioactive molecules for cosmetics and pharmaceutical applications.

We have more than 15 years of experience in sensory neurobiology, studying peripheral neurons. These neurons detect external stimuli in the skin, transfer environmental information to the brain and are implicated in altered conditions like atopic dermatitis, chronic itch or rosacea. All this makes the cutaneous nervous system a fundamental target for the development of innovative molecules.

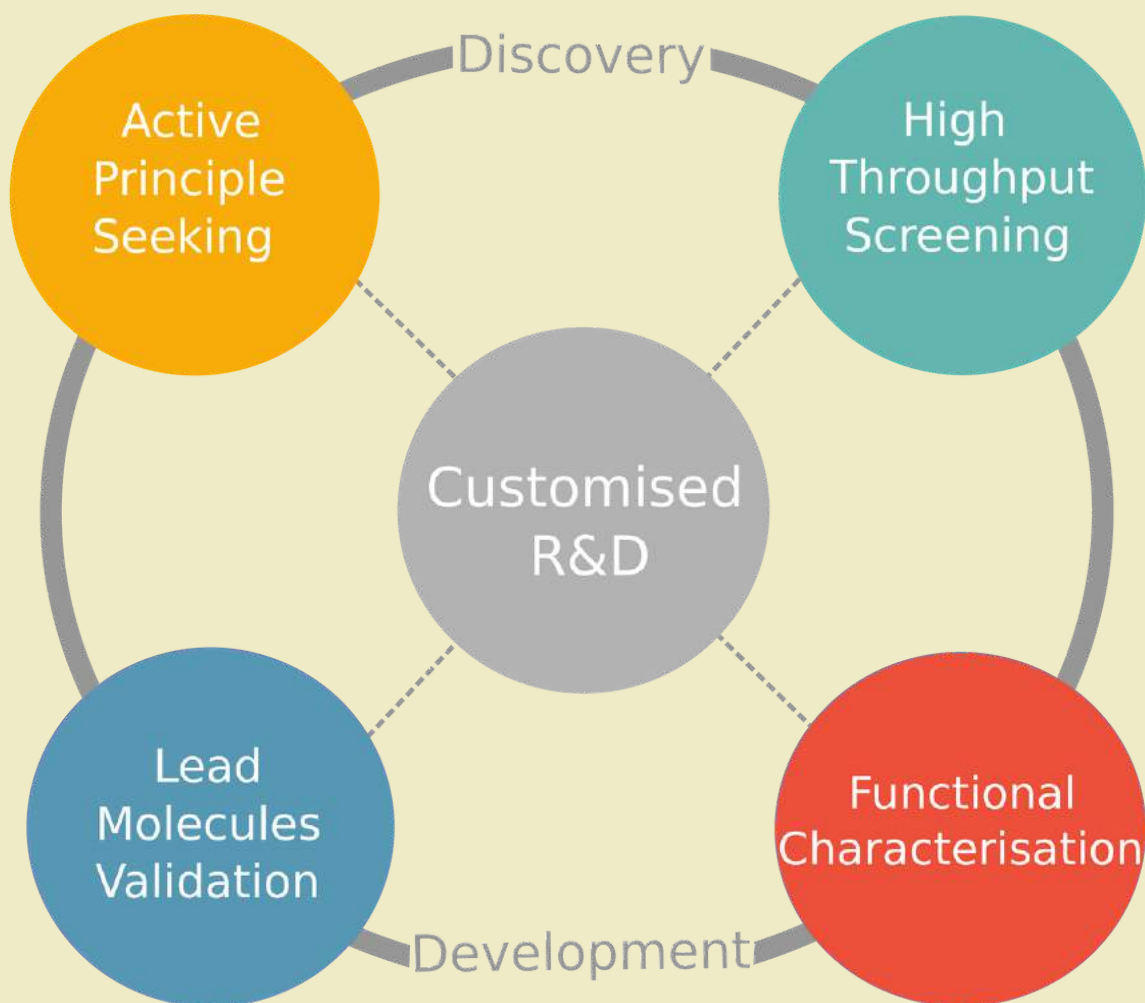
Our research and development (R&D) experience qualifies us to provide a high-quality service in regard to novel molecules and translational research.



Services

AntalGenics offers the technology and knowledge required for the management of a wide variety of active ingredient formulation. Our R&D capabilities provide high-quality design and development activities to meet the client's requirements.

We execute various projects, including the creation of intellectual property rights for the cosmeceutical and pharmaceutical industry.



AntalGenics' customised research services include designing new molecules, high-throughput screening as well as validating active ingredients.

Ranging from the design and identification of new molecules and related targets to the validation of active ingredients, AntalGenics develops high-efficacy products by providing a well-characterised molecular mechanism of action that is validated with specific state-of-the-art techniques.

AntalGenics offers four interconnected platforms to meet the requirements of the entire product development process. Our development capacity helps deliver high-quality active ingredients.

Active principle seeking

Our molecular modelling platform comprises a range of computational design methods which are used to achieve complex molecular structures.

These structural models can be used to perform virtual screening using virtual chemical libraries, to modify proteins, to determine protein-protein interactions, to identify and to design new active compounds.

Computational analysis can then be used to virtually test, validate and optimise candidate compounds as part of the characterisation process. Once optimised, we select the best molecules to be tested *in vitro*.



High Throughput Screening

Our automated testing techniques are combined with modern technologies to provide a high-throughput screening service. It evaluates the pharmacological activity of molecules using functional tests such as:

- Molecular biology – Gene expression characterisation.
- Enzyme assays – Phosphodiesterase, kinases, and phosphatase assays.
- Immunological assays – Immunofluorescence studies and ELISA.
- Cellular assay – Functional validation in primary cultures and cell lines.
- Cellular toxicity assay in relevant cellular contexts.

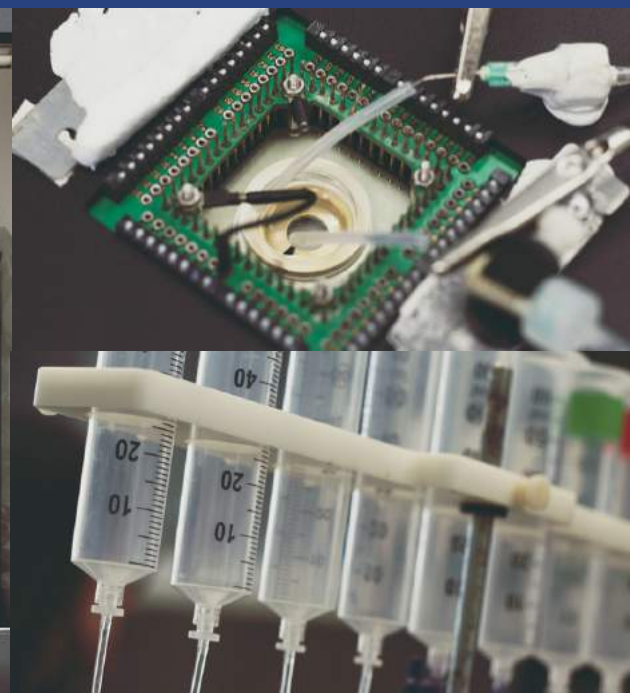


Lead Molecules Validation

We are specialised on the functional study of ion channels implicated in pain and sensory neurobiology, like TRPs and cannabinoid receptors, among others. To carry out molecule characterisation, we use high throughput screening methods:

- Multimodal microplate reader and IonFlux for automatised electrophysiological characterisation.
- IN cell to visualise and study living cells.

The combination of high throughput techniques with computational screening provides new and innovative research methodology in both cosmeceutical and pharmaceutical industry.



Functional Validation

At AntalGenics we employ both complex skin models and simplified neuronal models to explore the efficacy of candidate compounds in various altered or physiological contexts that may occur in the skin.

- Neuronal excitability – The measurement of responses to physical and chemical stimuli in neuronal models.
- Neuronal sensitivity – The induction of a sensitised state in neuronal models to study different skin conditions with an inflammatory component and to evaluate chemical and pollutant sensitisation.
- Skin-neuron interaction – To explore the communication between neurons and skin cells on co-cultures from sensory neurons and different cells of the skin.
- Neurotoxicity – To explore the cellular viability effects of new active ingredients on neurons to evaluate their cytotoxicity.

Our skin models enable us to explore the effect of active principles and to design customised molecules.

WANT TO KNOW MORE?

CONTACT US!



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