

VENOMICS RESULTS



Venomics

VENOMS

Include large natural library reticulated toxins with potential pharmacological activity.

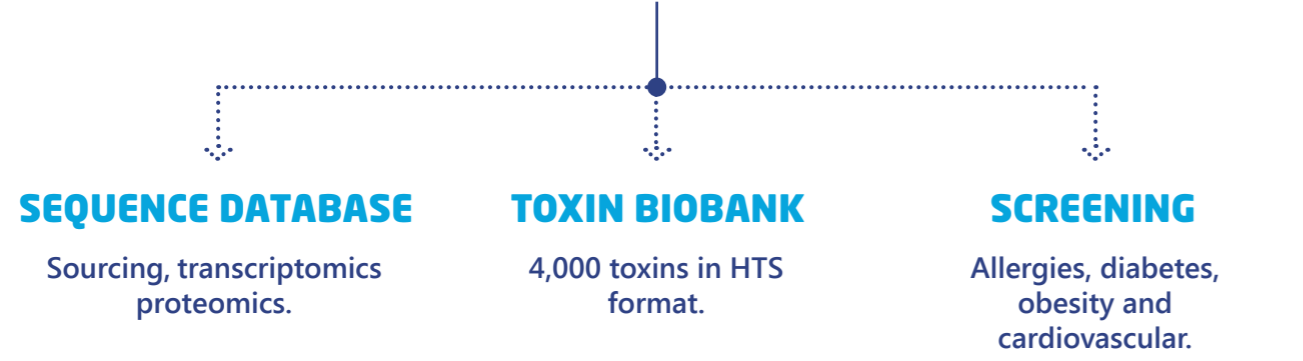
TOXINS

Are continuously refined by the evolution process up to the point that every molecule is valuable in the context of human use.

DRUG DISCOVERY

Is a slow and costly process incompatible with industrial high throughput approach.

VENOMICS:
Unique High Throughput Screening compatible strategy



MAIN RESULTS

REDUCTION OF COMPLEXITY IN DRUG DISCOVERY

Application of omic technologies creating a groundbreaking paradigm shift to exploit natural bioactive compounds.

BIODIVERSITY POTENTIAL

Largest and most diverse collection of samples worldwide with more than **200 venomous species** studied.

SEQUENCE DATABASE

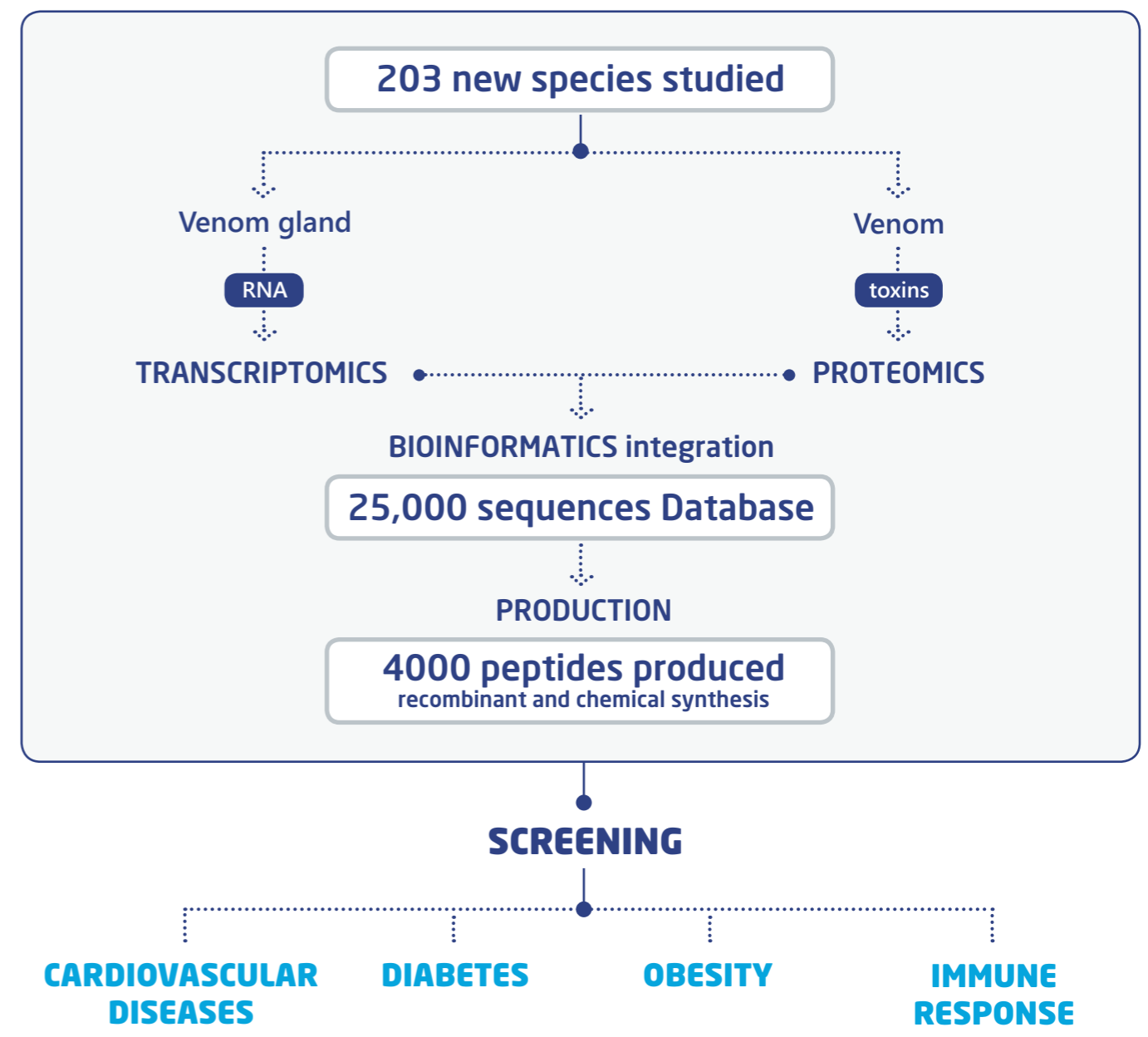
25,000 validated toxin sequences of less than 120 residues in size containing at least one S-S bond

PEPTIDE BANK

The biggest synthetic bank of toxin with **4000 novel peptides** for pharmacological screening

DRUG DEVELOPMENT

30 confirmed hits already identified with nM to μM affinities



A FEW SCREENED VENOMICS HITS EXAMPLES



Conus lithoglyphus
25 residues, 2 SS
Ki = 5 nM



Poecilotheria regalis
28 residues, 3 SS
Ki = 100 nM



Parabuthus transvaalicus
34 residues, 3 SS
Ki = 300 nM

VENOMICS consortium

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