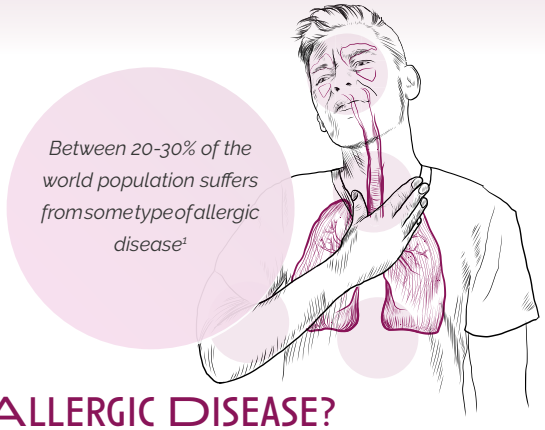
REVOLO BIOTHERAPEUTICS

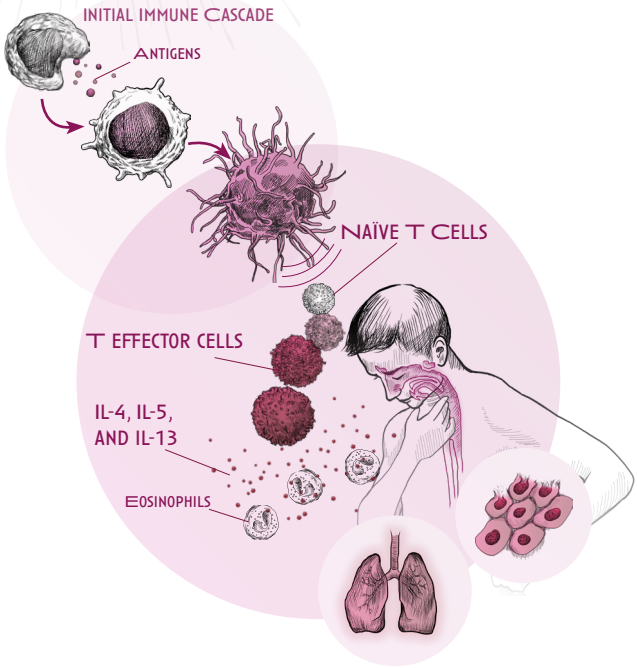
Analyze. Reset. Revolutionize.

ALLERGIC DISEASE

We aim to revolutionize the treatment landscape for allergic diseases

Allergic diseases are a group of chronic disorders caused by hypersensitivity of the immune system to typically innocuous environmental substances called allergens. Allergic symptoms can range from mild to severe and can affect airways, sinuses, nasal passages, skin and/or the digestive system.





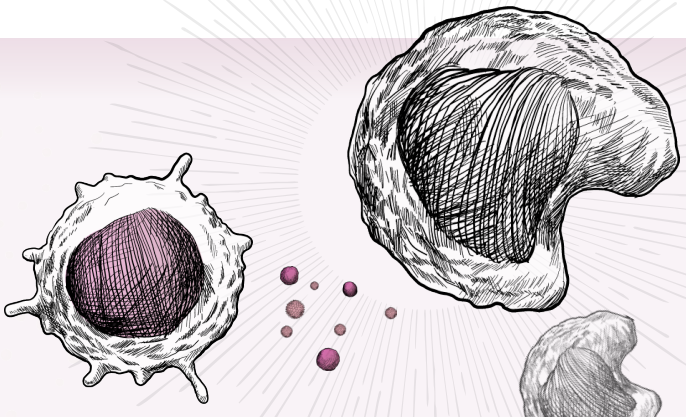
WHAT DRIVES ALLERGIC DISEASE?

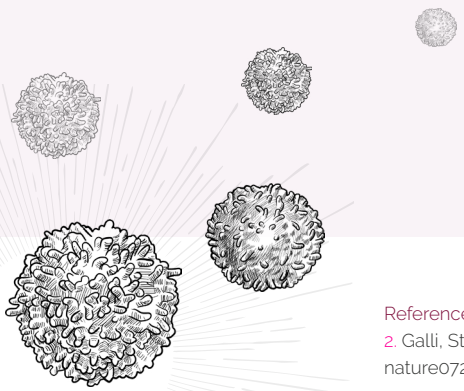
Interaction of a person's body with certain environmental allergens that are normally perceived as innocuous by the body causes the immune system to "overreact".

This leads to an increase in activation of blood cells such as T effector cells and eosinophils, as well as other inflammatory cells to persistently produce inflammatory cytokines such as **interleukin 4, 5 and 13** (IL-4, IL-5 and IL-13)[2].

The complex pathophysiology of allergic disease is driven by interactions between T effector cells, eosinophils and IL-4, IL-5 and IL-13. These interactions contribute to immune system overreaction, including inflammation, increased mucus production and tissue remodeling.

Early disease control is critical to avoid severe reactions.

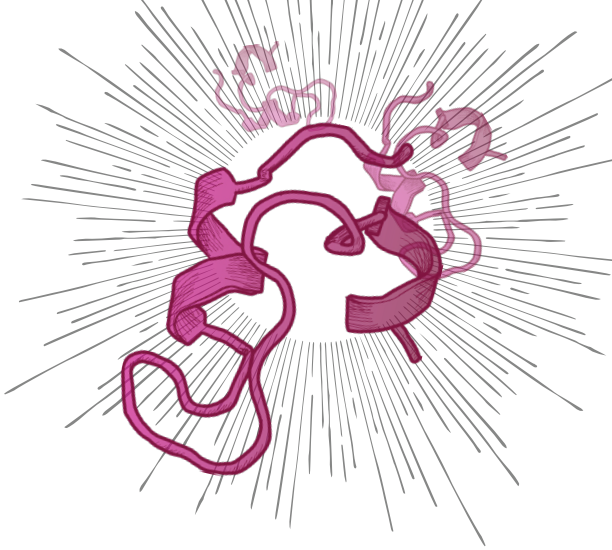




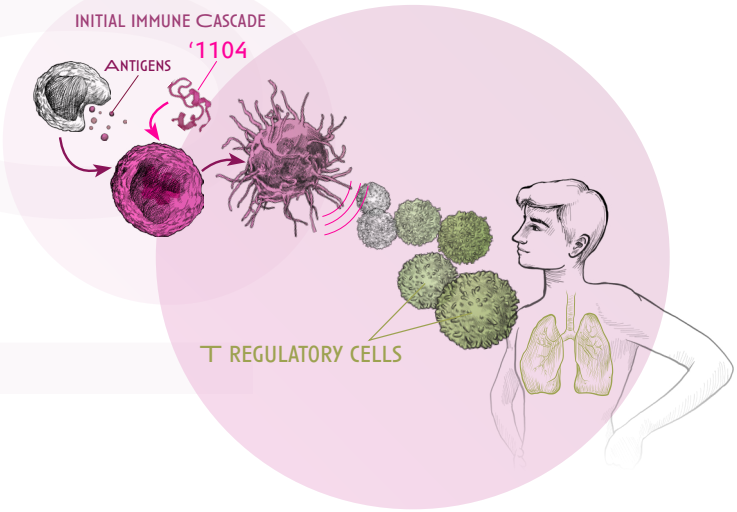
References: 1. Pawankar, Ruby, et al. "White Book on Allergy 2011-2012 Executive Summary." World Health Organization. 2. Galli, Stephen J et al. "The development of allergic inflammation." Nature vol. 454,7203 (2008): 445-54. doi:10.1038/nature07204

‘1104

Resetting the immune system for long-term allergic disease remission



Revolo’s clinical drug candidate ‘1104 is a peptide derived from a protein involved in resetting the immune system, mTB chaperonin 60.1.



HOW IS ‘1104 DIFFERENT FROM EXISTING THERAPIES?

‘1104 resets the immune system by acting “upstream” or before the inflammatory cascade.

It increases the number of cells that regulate the immune system (T regulatory cells) and restore its balance (immune homeostasis), thereby avoiding chronic inflammation without suppressing the immune system.

‘1104 – ADDRESSING BOTH CELLULAR AND CYTOKINE-RELATED INFLAMMATION

REDUCES CELLULAR INFLAMMATION	REDUCES RELEVANT CYTOKINES (IL-4, IL-5, IL-13)	INCREASES EXPRESSION OF A20	ALLERGEN AGNOSTIC	DEMONSTRATED SAFETY AND TOLERABILITY IN TWO PHASE 1 STUDIES
Single dose ‘1104 reduced three key inflammatory cells (eosinophils, neutrophils and lymphocytes) in pre-clinical studies[4-6]	Single dose ‘1104 reduces relevant cytokines involved in the inflammatory cascade[5]	Single dose ‘1104 increased A20, a key regulator of the inflammatory response[6]	‘1104 reduced the cellular inflammation to a range of allergens in pre-clinical studies[4]	with intravenous or subcutaneous administration at clinically relevant doses (total of 112 subjects dosed with ‘1104)[4]

PHASE 2 TRIALS

A PHASE 2 TRIAL is currently testing the applicability of ‘1104 for allergic diseases through an allergen sensitivity study.

Revolo is also testing the applicability of ‘1104 for eosinophilic esophagitis (EoE) through an ongoing PHASE 2 clinical trial in the US. Click here to learn more.

References: 4. Immune Regulation Ltd. Immune Regulation announces positive results from Phase 1 clinical trial of IRL201104. https://revolobio.com/2019/12/10/immune-regulation-announces-positive-results-from-phase-1-clinical-trial-of-irl201104/. Published December 10, 2019. Accessed Dec 20, 2021. 5. Riffo-Vasquez Y, et al. 2012. “Mycobacterium tuberculosis chaperonin 60.1 Inhibits leukocyte diapedesis in a murine model of allergic lung inflammation.” Am. J. Respir. Cell Mol. Biol.; 47(2):245-52. 6. Riffo-Vasquez Y, et al. 2020. “Modulation of allergic inflammation in the lung by a peptide derived from Mycobacteria tuberculosis chaperonin 60.1.” Clinical & Experimental Allergy; 50(4), 508–519.

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