

Eosinophilic inflammatory diseases of the respiratory system: New therapeutic options

An expert panel discussion recorded in May 2021

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Expert panel



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Agenda

A closer look at the role of eosinophils

Challenges in the diagnosis of respiratory inflammatory diseases

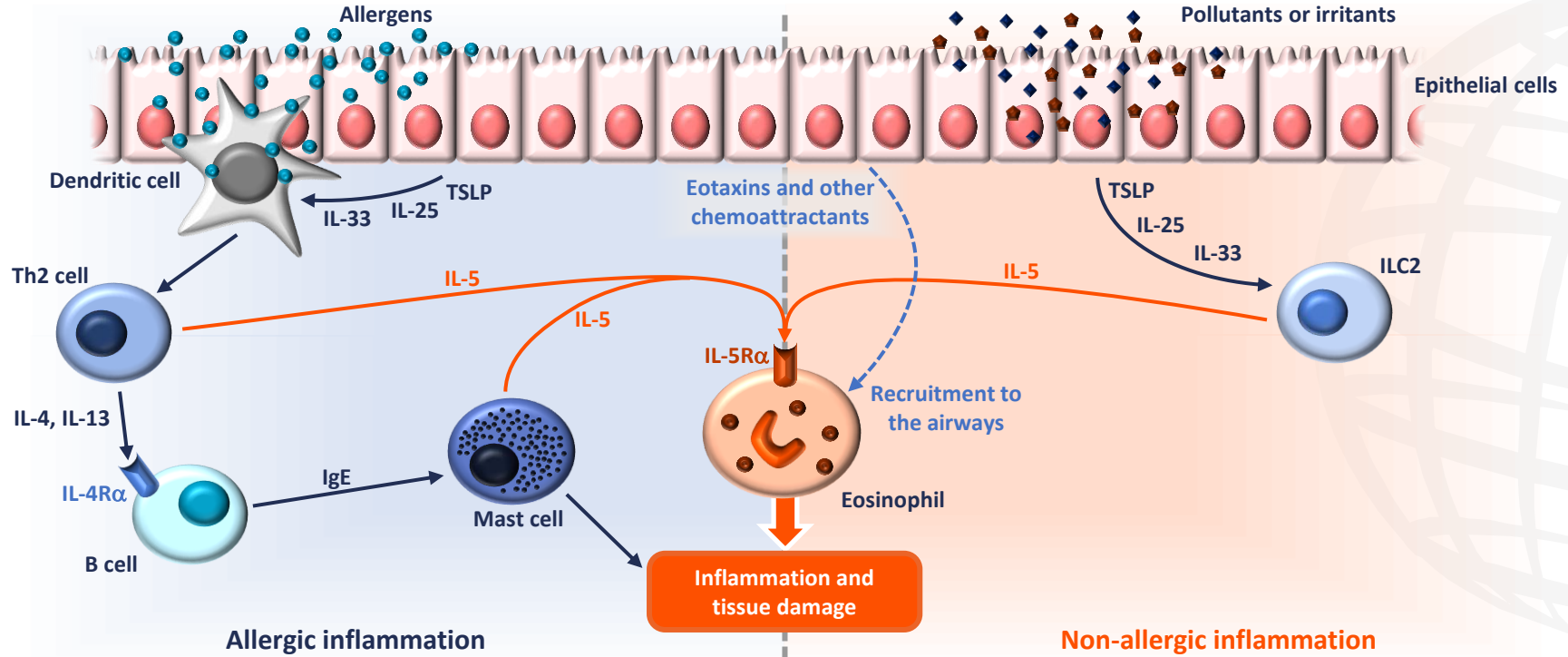
The future of anti-eosinophil therapy in the management of respiratory disease



A closer look at the role of eosinophils

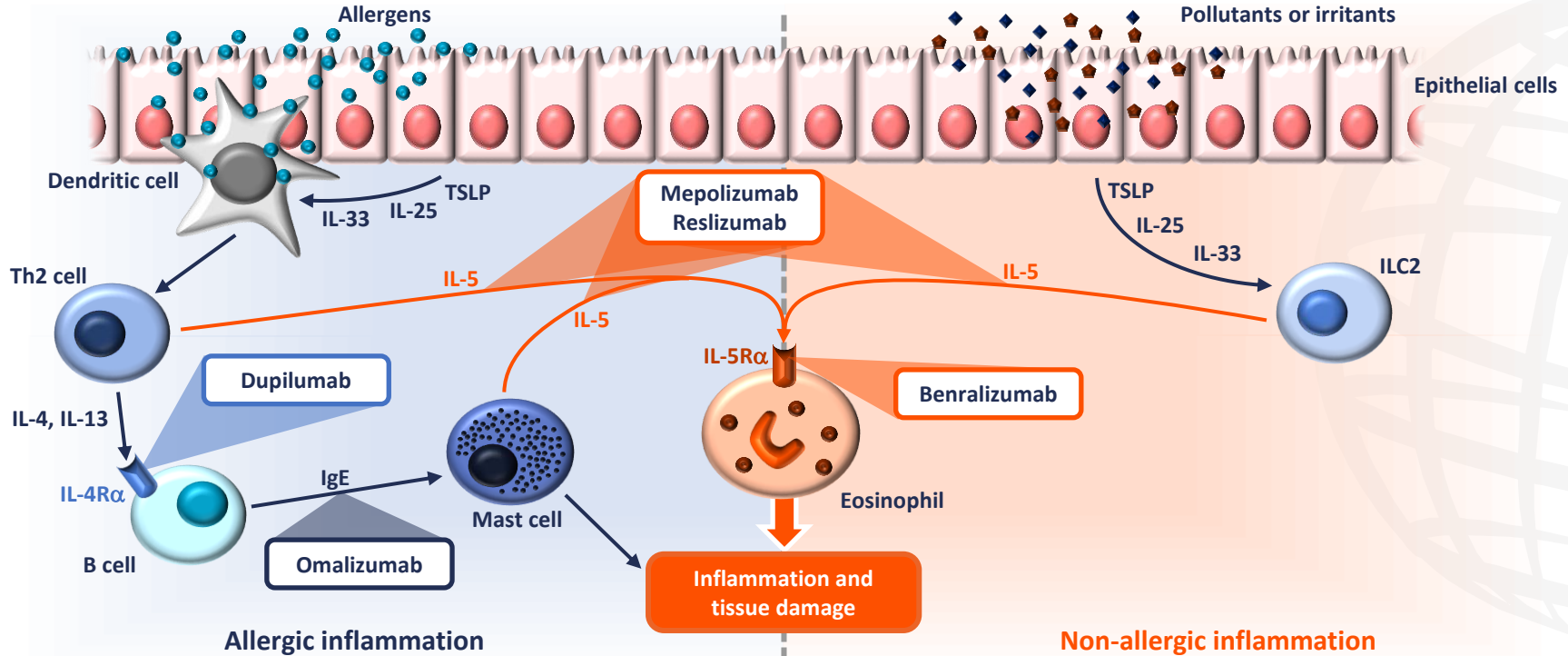


The role of eosinophils in type 2 airway inflammation



IgE, immunoglobulin E; IL, interleukin; IL-4Rα, IL-4 receptor alpha; IL-5Rα, IL-5 receptor alpha; ILC2, group 2 innate lymphoid cell; Th2, T helper 2; TSLP, thymic stromal lymphopoietin.
 Pelaia C, et al. *Front Immunol.* 2020;11:603312.

Biologics targeting eosinophilic inflammation



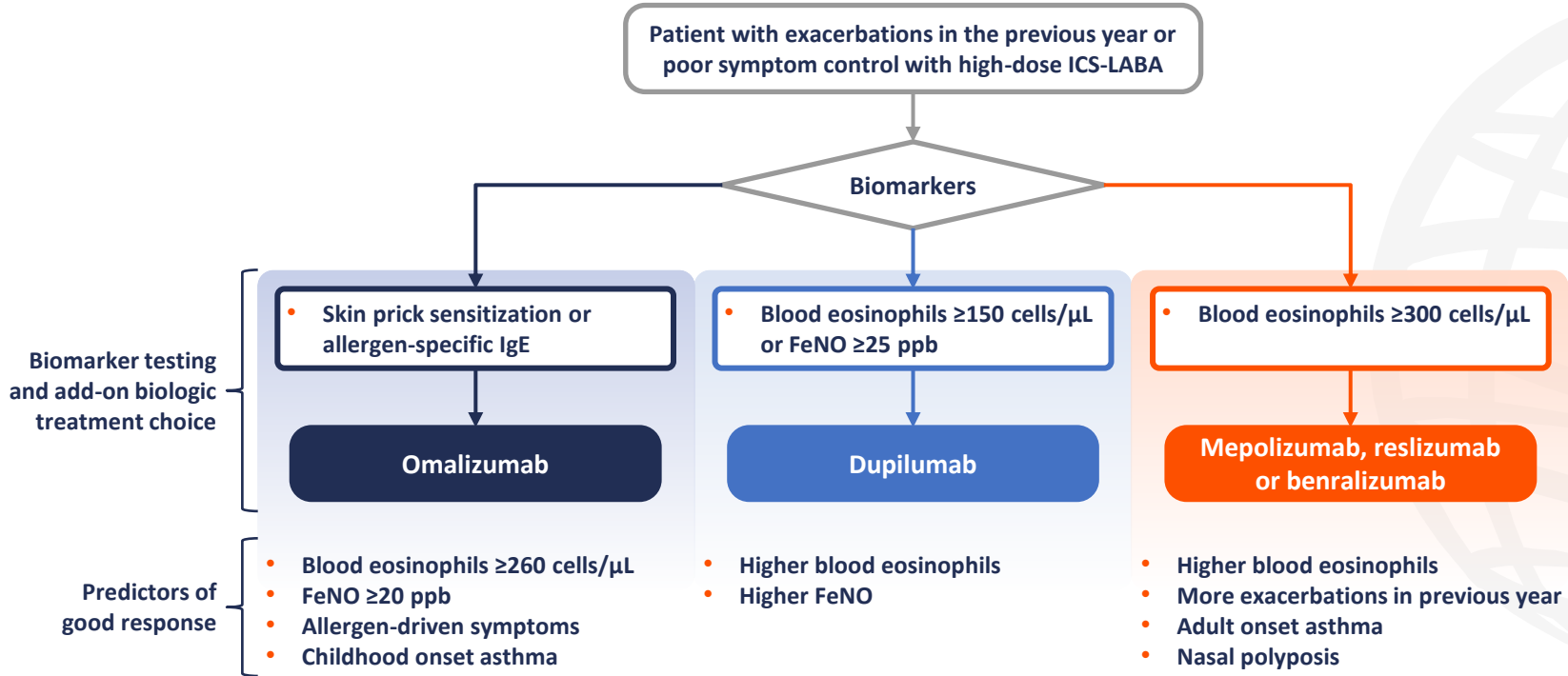
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Challenges in the diagnosis of respiratory inflammatory diseases

GINA guidelines: Biologics to treat uncontrolled asthma



FeNO, fractional exhaled nitric acid; GINA, Global Initiative for Asthma; ICS, inhaled corticosteroid; IgE, immunoglobulin E; LABA, long-acting β 2-agonist; ppb, parts per billion.

Global Initiative for Asthma: Global strategy for asthma management and prevention. 2020. Available at: www.ginasthma.org/wp-content/uploads/2020/06/GINA-2020-report_20_06_04-1-wms.pdf (accessed 12 April 2021).



The future of anti-eosinophil therapy in the management of respiratory disease

Selected ongoing phase III trials for approved biologics

Mepolizumab (anti-IL-5)

Condition	Trial(s) information
COPD	<ul style="list-style-type: none">MATINEE (NCT04133909)COPD-HELP (NCT04075331)
CRSwNP	<ul style="list-style-type: none">MERIT (NCT04607005)

Dupilumab (anti-IL-4R α)

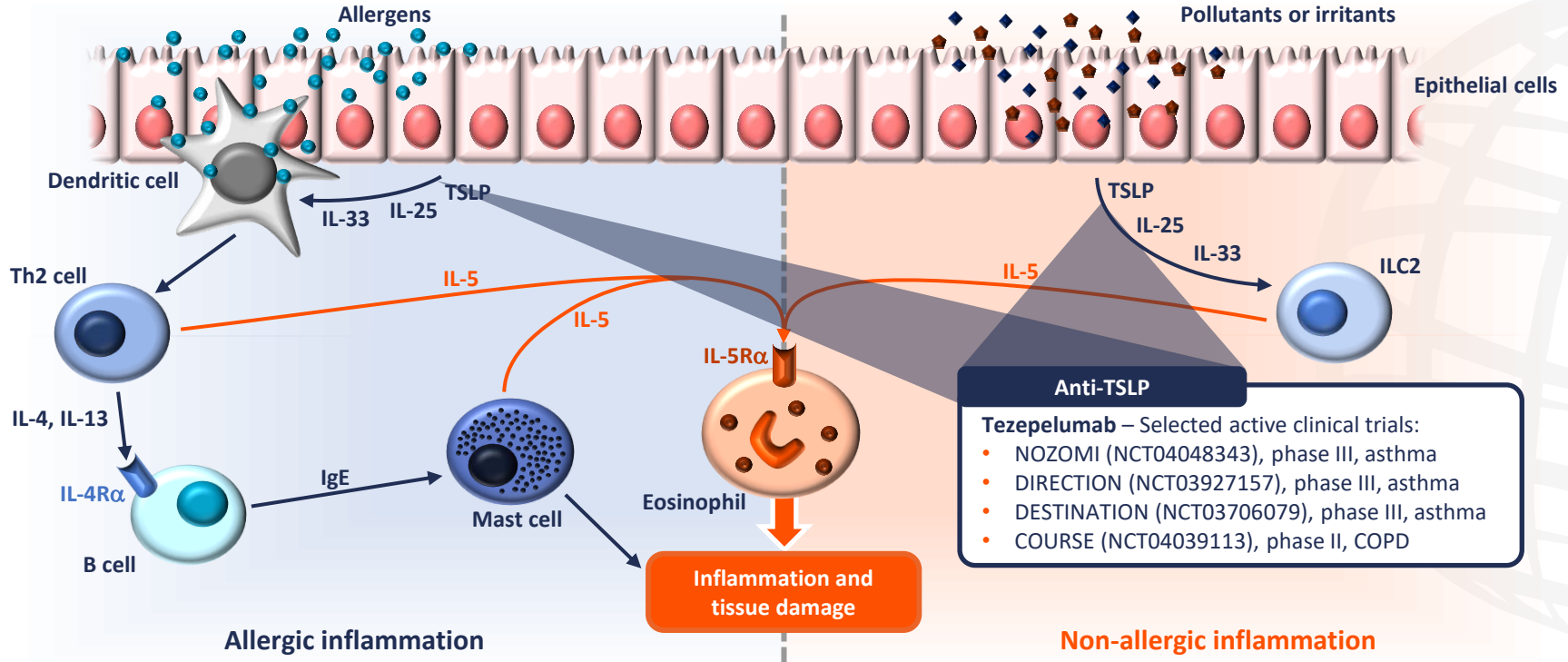
Condition	Trial(s) information
COPD	<ul style="list-style-type: none">BOREAS (NCT03930732)NOTUS (NCT04456673)
ABPA	<ul style="list-style-type: none">LIBERTY ABPA (NCT04442269)

Benralizumab (anti-IL-5R α)

Condition	Trial(s) information
COPD	<ul style="list-style-type: none">RESOLUTE (NCT04053634)
SEA (children 6–14 years old)	<ul style="list-style-type: none">TATE (NCT04305405)
CRSwNP	<ul style="list-style-type: none">NAPPREB (NCT04185012)ORCHID (NCT04157335)

ABPA, allergic bronchopulmonary aspergillosis; COPD, chronic obstructive pulmonary disease; CRSwNP, chronic rhinosinusitis with nasal polyposis; IL, interleukin; IL-4R α , IL-4 receptor alpha; IL-5R α , IL-5 receptor alpha; SEA, severe eosinophilic asthma. Clinical trials listed by their identifiers at: ClinicalTrials.gov (accessed 13 April 2021).

Emerging agents targeting eosinophilic inflammation



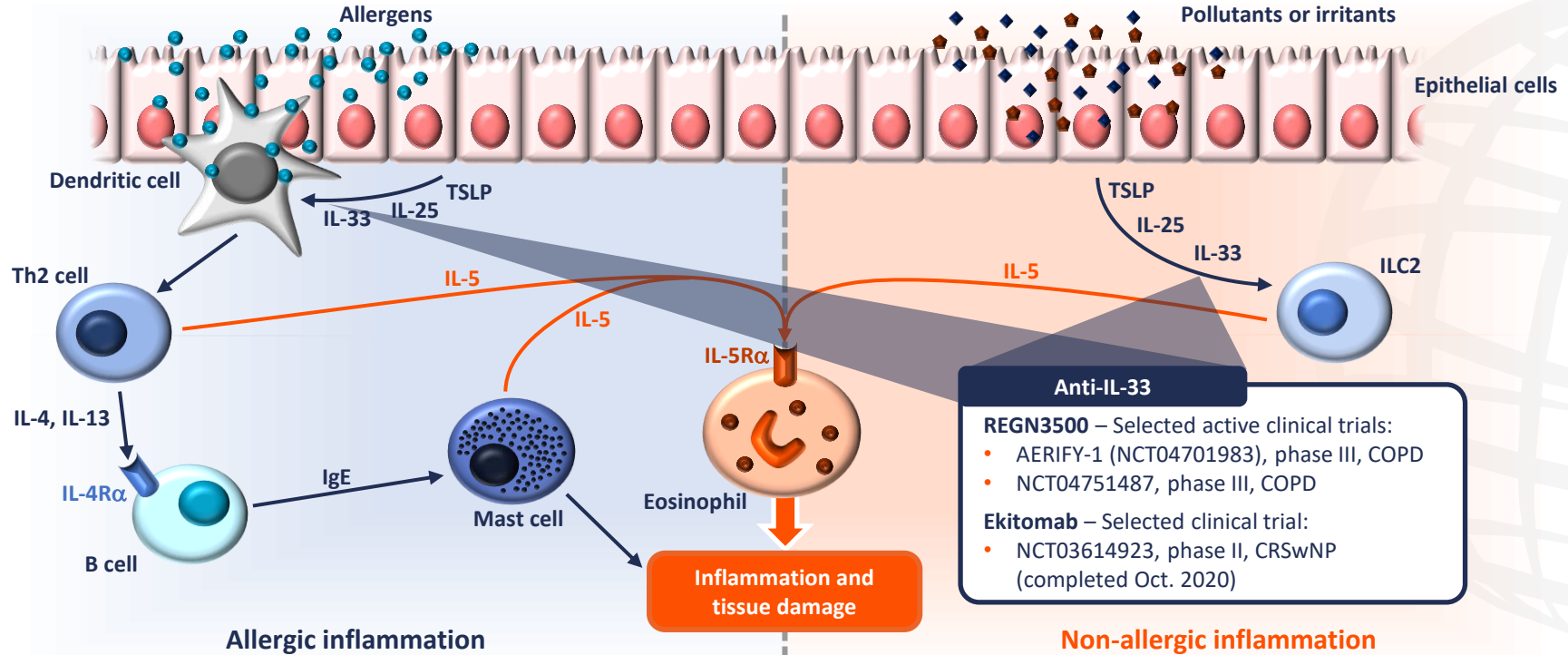
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