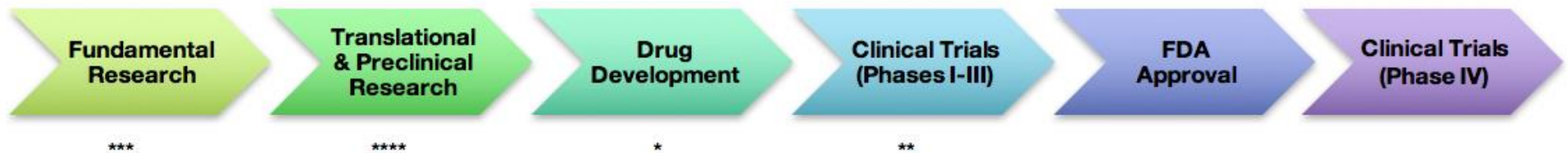


Eosinophilic Research at the Cincinnati Center for Eosinophilic Disorders (CCED)

The [Cincinnati Center for Eosinophilic Disorders](#) (CCED) is a leader in research for these often-misunderstood conditions. Our research spans all states of therapeutic development. Developing new treatments and cures is an involved process that requires significant time and investment, especially during the fundamental stages of basic research and discovery validation, which are a major priority of the CCED. The CCED has a critical role in this process, working tirelessly on each stage, and has already had a key role in the development of therapeutic strategies for eosinophilic disorders such as [eosinophilic esophagitis](#) (EoE) and hypereosinophilic syndrome (HES).

Stages of Therapeutic Development (*Level of CCED Involvement)



Current* Pipeline of Diagnostic and Therapeutic CCED Research (*As of April 2017)

Mechanism	Target	CCED Research	Therapeutic Agent	CCED Clinical Trials	Phase of Development
Suppress inflammatory response					
Systemic corticosteroids	Immune system	1-3			Off-label clinical use
Topical corticosteroids	Local inflammation	1-3	Flovent	4,5 and Current Trial (enrollment closed)	Off-label clinical use
			Budesonide		III
Anti-inflammatory	CDH26	6,7	CDH26-Fc		Preclinical
Anti-inflammatory	NTRK1 (aka TRKA)	8			Preclinical
Anti-inflammatory	SPINK7 and A1AT				Preclinical

(continued on next page)

Current* Pipeline of Diagnostic and Therapeutic CCED Research (continued)

Mechanism	Target	CCED Research	Therapeutic Agent	CCED Clinical Trials	Phase of Development
Block eosinophil recruitment					
<i>Chemokine inhibition</i>	CCR3	9-36			II
<i>Chemokine inhibition</i>	CCL11 (eotaxin-1)	9,10,12,14,17,20,22,25-27,30,31,33,35-77	Bertilimumab		III
<i>Cytokine inhibition</i>	IL-13	1,3,17,18,20,27,29,30,33,34,56,59,60,62,66,70,75,78-112	QAX576	Current Trial (ongoing)	III
			RPC4046		
<i>Cytokine receptor inhibition</i>	IL-13R	30,79,81,82,91,103,105,107,108			III
<i>Cytokine receptor inhibition</i>	IL-4R	30,34,75,78-80,102,103,105,106,113,114	Dupilumab	Current Trial (enrollment open)	II
<i>Anti-inflammatory</i>	TGF-β	30,72,106,115	Lorsartan	Current Trial (enrollment open)	II
<i>Adhesion molecule inhibition</i>	Periostin	116			Preclinical
<i>Chemokine inhibition</i>	CCL26 (eotaxin-3)	1,3,24,29,80,83,104,117-119			Preclinical
<i>Epigenome modifiers</i>	Epigenome	83			Fundamental
Inhibit eosinophil activation					
<i>Cytokine inhibition</i>	TSLP	120,121	AMG 157		II
<i>Cytokine inhibition</i>	IL-33	Pre-publication			Preclinical
Inhibit eosinophil survival					
<i>Cytokine inhibition</i>	IL-5	10,14,16-18,25,28,29,32-34,41,47,49,50,52,53,56,58-64,66,71,73,75,76,80,105,112,122-144	Mepolizumab	28,32,130,139	FDA-approved for eosinophilic asthma
			Reslizumab	142 and Current Trial (enrollment closed)	FDA-approved for eosinophilic asthma
<i>Eosinophil depletion</i>	IL-5R-α		Benralizumab		III
<i>Activation of inhibitory receptor</i>	Siglec-8	126,138,145,146			Preclinical
<i>Activation of inhibitory receptor</i>	PIRB	31,147			Preclinical
Modulate epithelial barrier					
<i>Cysteine protease modulation</i>	CAPN14	148			Preclinical
<i>Adhesion molecule inhibition</i>	CDH26	6,7			Fundamental
<i>Barrier integrity modulation</i>	Barrier function	107,149			Fundamental
Molecular diagnostics					
<i>Gene expression</i>	Eosinophilic Esophagitis (EoE) Diagnostic Panel	1,108,110,150-152			Clinical validation

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