Cincinnati Children's | Innovation Ventures

Gastroenterology

Biomarker Response Signatures of Children Receiving Infliximab for Crohn's Disease

Brief Description of Technology

Plasma Proteomic Response Signature of Children Receiving Infliximab for Crohn's Disease

TECHNOLOGY ID

2021-0602

COMPLEMENTARY TECHNOLOGY

2019-0801

BUSINESS OPPORTUNITY

Exclusive License or Sponsored Research

TECHNOLOGY TYPE

Diagnostic

PATENT INFORMATION

Provisional Filed

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Technology Overview

Individual response to biologic anti-TNF treatment of Crohn's disease (CD) in children has been variable. While subtherapeutic dosing exposure can contribute to primary or secondary nonresponse, we have identified specific biomarker signatures that primary infliximab (IFX) non-responders express. Unsupervised plasma proteomic analysis identified 10 novel candidate biomarkers for infliximab outcomes of response and non response. The set of 10 candidate proteins for biochemical remission demonstrate an AUC of 0.7.

Applications

- Monitor or select Crohn's Disease patients to use anti-TNF therapy
- Identify patients with lower probability achieving remission using Infliximab

Advantages

A promising biomarker assessment to identify responders and non-responders to Infliximab treatment for Crohn's disease.

Market Overview

- Crohn's disease (CD) may affect 565,000 and as many as 780,000 in the US.
- Prevalence of CD in children was measured at 58/100K and in adults approximately 241/100K.

Investigator Overview

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