



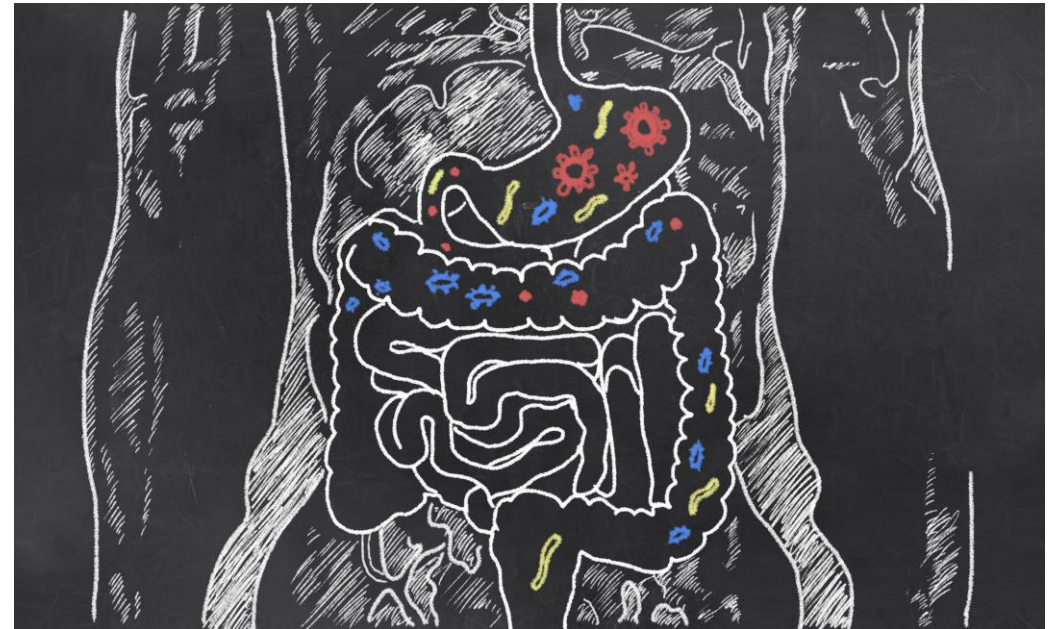
ARTIZAN
BIOSCIENCES

Prepared for Yale Innovation Summit
May 2021

Microbial Virulence Factors: Drivers of Inflammatory Disorders

- Microbial virulence factors induce GI epithelial barrier disruption (“leaky gut”) in numerous chronic inflammatory disorders
- Artizan uniquely identifies, characterizes and inhibits microbial virulence factors
- Susceptible person + “pathobiont” = foundation for inflammatory disorder

- Leaky gut disease burden:
 - Crohn’s & Ulcerative Colitis (IBD)
 - Celiac Disease
 - NASH, NAFLD
 - Diabetes, Obesity
 - Metabolic Disorders
 - Parkinson’s Disease



World-Class Founding Scientists & Leadership

Founders:

- Dr. Richard Flavell, Yale Immunobiology, HHMI Investigator
- Dr. Noah Palm, Yale Immunobiology
- Dr. Marcel de Zoete, Utrecht University (Netherlands)



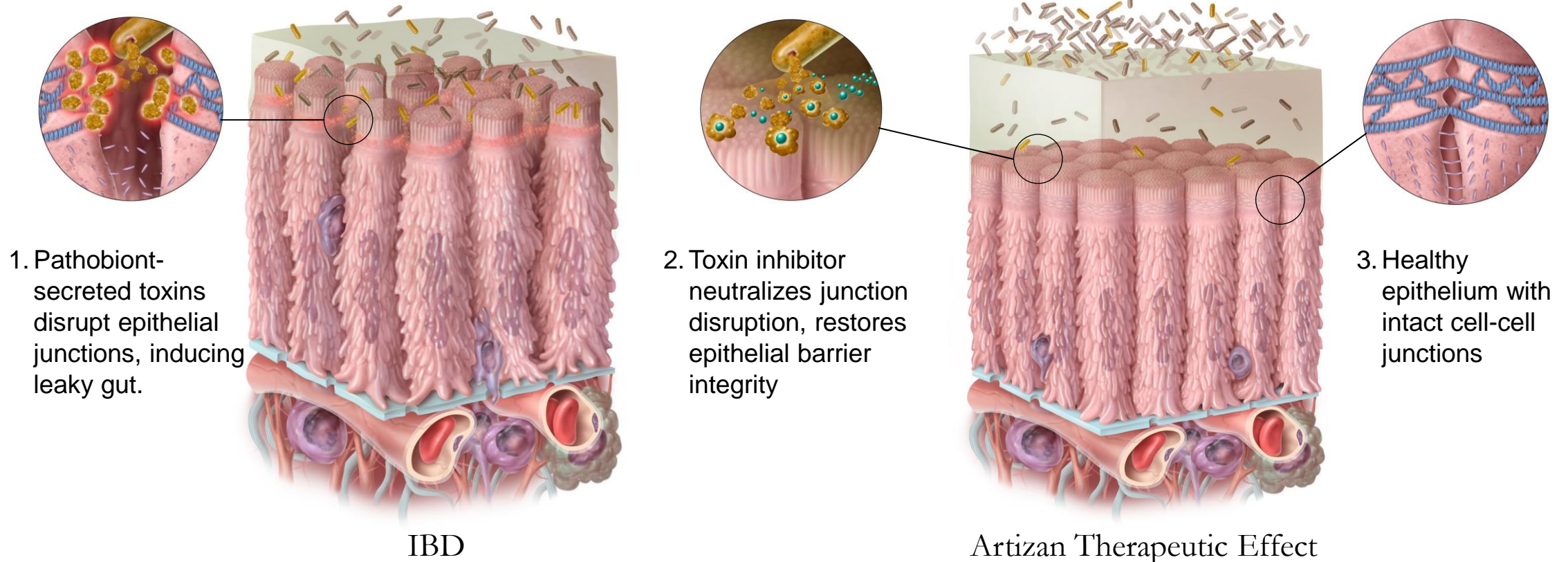
Board of Directors:

- Dr. Christy Shaffer (Chair), Partner, Hatteras Venture Partners
- Dr. Jon Soderstrom, Managing Director, Yale University OCR
- Dr. Holden Thorp, Editor-in-Chief of Science and the Science family of journals
- Dr. Seth Rudnick, Canaan Partners, Biogen, Ortho Biotech, Cytotherapeutics
- Dr. Donnie McGrath, Chief of Corporate Strategy & Business Development, Biohaven Pharmaceuticals
- James Rosen, CEO, Artizan Biosciences

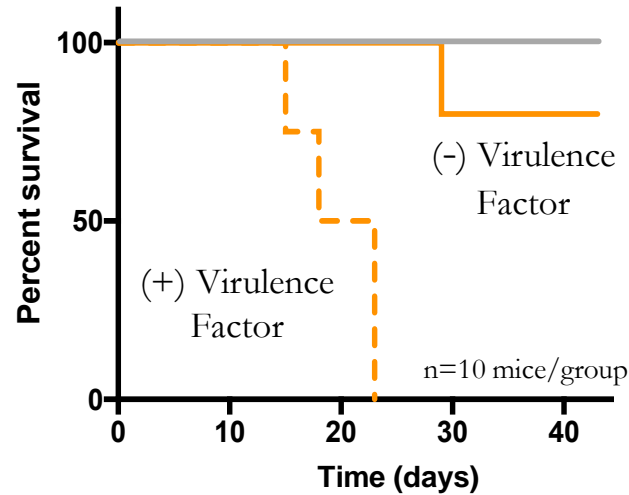
Artizan's Mission is to restore lives disrupted by inflammatory disease through innovation and advancement of microbiota-targeted therapies

Artizan Research: Deciphering Microbiome-IBD Causality

Pathobiont Mechanisms and Artizan Solutions

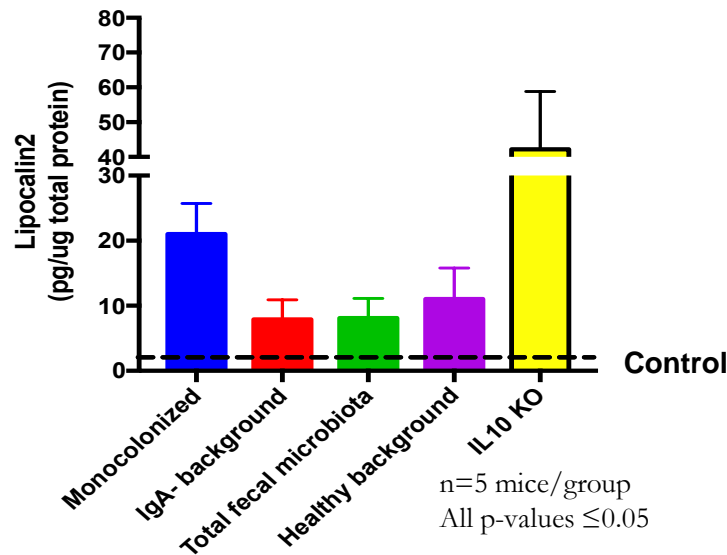
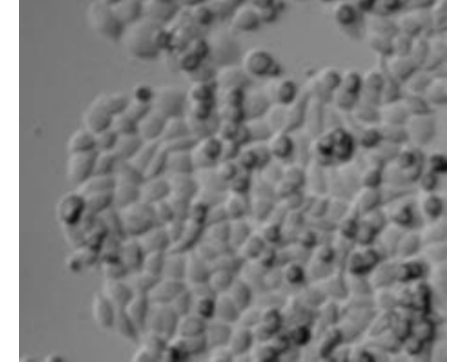


Strain-Level Investigation Reveals Lead Pathobionts



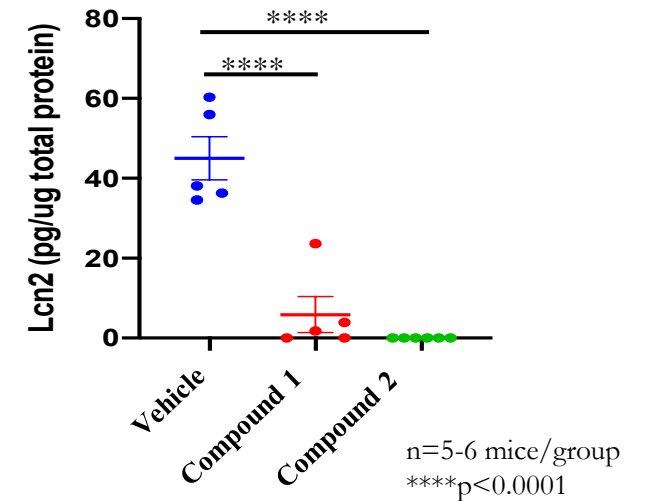
Pathobiont #1 is a Strain of a Common Commensal, with a Virulence Factor

(+) Virulence Factor Disrupts Epithelial Monolayers



Strain (+) Virulence Factor Causes Colitis in Diverse Models

Virulence Factor is Druggable



Lipocalin 2 (Lcn2) = marker of intestinal inflammation

Artizan's Approach Links to Patient Clinical Evidence

Proprietary “IBD-BIOME” sample collection

- 500 donors across 7 U.S. sites
- Longitudinal design: baseline, 6, 12, 18 mos., +flare
- 300 IBD patients with medical records
- 200 healthy controls (100 cohabitants + 100 random)
- Study completed; >90% participation through 18 mos.
 - >97% through 12 months; subsequent COVID impact
- >1,500 samples collected – highly valuable resource



Crohn's & Colitis IBD Plexus

- Access to >3,200 adult IBD patients records and samples
- Genomics & molecular data
- Medical records
- Artizan is the first biotech company to gain access to this resource



Declare Development Candidate by Q4'21

- Current leads selective and have nanomolar potency in vitro
- Exploring cross-organism activity
- Submit IND by Q4'22

Additional key activities through 4Q'21:

- Confirm host targets for toxic factors produced by Pathobionts #2 and #3
- Select primary chemical series for progression of Pathobiont #2 inhibitor program
- Mature computational model with Pathobiont #2 toxin and lead inhibitors
- Test lead Pathobiont #2 inhibitors for efficacy in animal models of intestinal inflammation

Artizan Biosciences

Pioneering a new class of
medicines to counteract
pathogenic virulence factors
in the human gut

Thank you

