



# SELECTED OPPORTUNITIES IN INFLAMMATORY DISEASES

Use of Polydextrose for the treatment of IBD and other inflammatory diseases (BIO 17301)

# USE OF POLYDEXTROSE FOR THE TREATMENT OF IBD AND OTHER INFLAMMATORY DISEASES(BIO 17301)

## Product factsheet

*In Vivo PoC*

### ▶ **Target:**

- ◆ Gut Microbiota

### ▶ **Product:**

- ◆ Tested: Polydextrose (prebiotic)

### ▶ **Application:**

- ◆ Inflammatory diseases
- ◆ More particularly inflammatory bowel diseases

### ▶ **Rational:**

- ◆ The gut microbiota has emerged as a central factor affecting human health and disease, and inflammatory diseases are no exception
- ◆ The potential role of the gut in the pathophysiology of inflammatory diseases has recently begun to attract increased attention

### ▶ **POC:**

- ◆ In the murine model of DSS-induced colitis that the prebiotic, polydextrose (PDX), ameliorates survival, increases colon-length and weight gain after settlement of colitis and thus demonstrate that the fibre provides anti-inflammatory properties

### ▶ **Patent and publication:**

- ◆ PCT/EP2019/053480: USE OF POLYDEXTROSE FOR THE TREATMENT OF INFLAMMATORY DISEASES

# USE OF POLYDEXTROSE FOR THE TREATMENT OF IBD AND OTHER INFLAMMATORY DISEASES (BIO 17301)

Proof of concept

In Vivo PoC

## Polydextrose pretreatment improves recovery and survival in DSS-induced colitis in mice

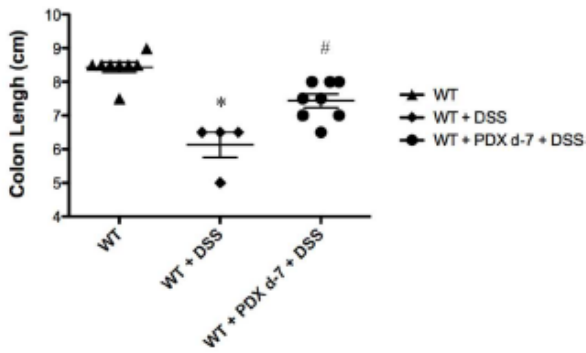
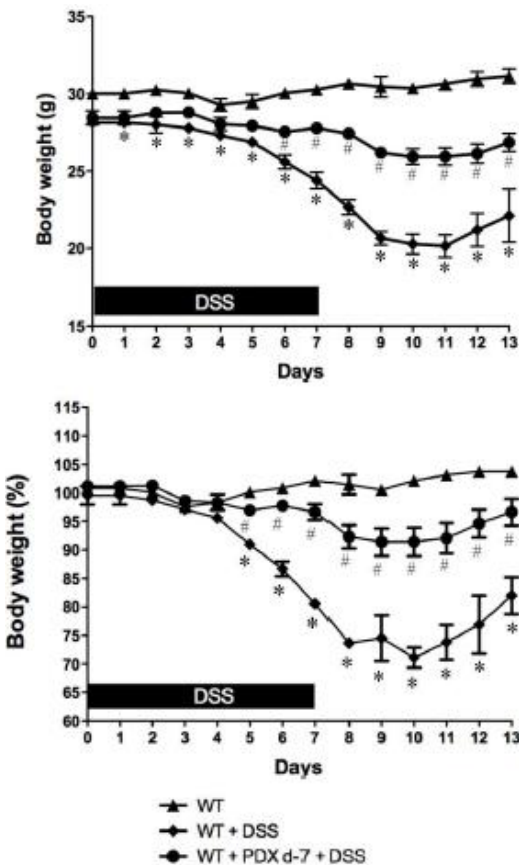


Figure 1B

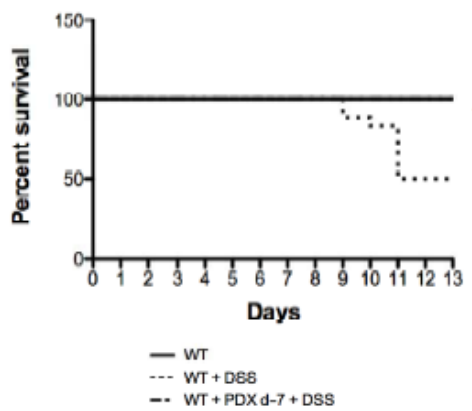


Figure: (Left panel) recovery is greater in mice pre-treated with Polydextrose (PDX) 7 days before administration of dextran sulfate sodium (DSS)-induced colitis, with earlier weight gain, and that PDX pre-treatment significantly increased colon length after DSS exposure (Figure 1B). \*: P<0.05 versus WT; #: P<0.05 versus DSS. (Right panel) Polydextrose pre-treatment ameliorates mice survival following DSS-induced colitis. \*: P<0.05 versus WT; #: P<0.05 versus DSS.

# USE OF POLYDEXTROSE FOR THE TREATMENT OF IBD AND OTHER INFLAMMATORY DISEASES (BIO 17301)

Proof of concept

In Vivo PoC

## Polydextrose pretreatment improves recovery and survival in DSS-induced colitis in mice fed with HFD

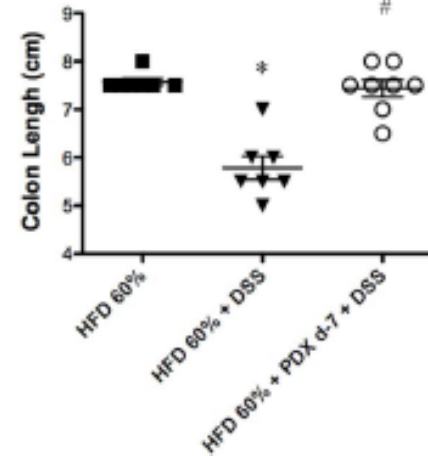
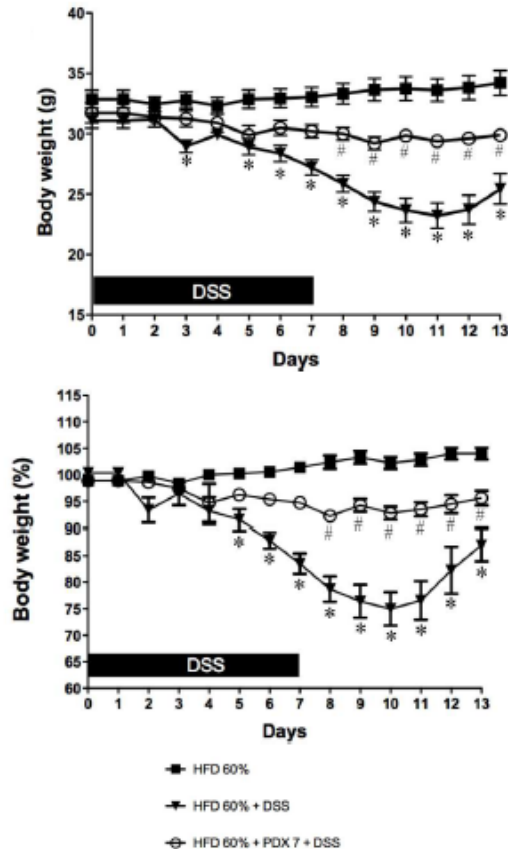


Figure: recovery is greater in mice pre-treated with Polydextrose (PDX) after 1 month of HFD 60% and after DSS-induced colitis (**Left panel**), with earlier weight gain, and that PDX pre-treatment significantly increased colon length after DSS exposure (**Right panel**).

\*:  $P < 0.05$  versus WT; #:  $P < 0.05$  versus DSS.

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Proof of concept

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## Polydextrose treatment improves recovery and survival in DSS-induced colitis in mice

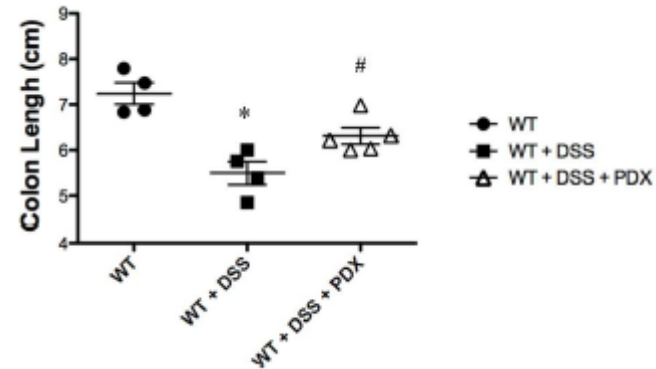
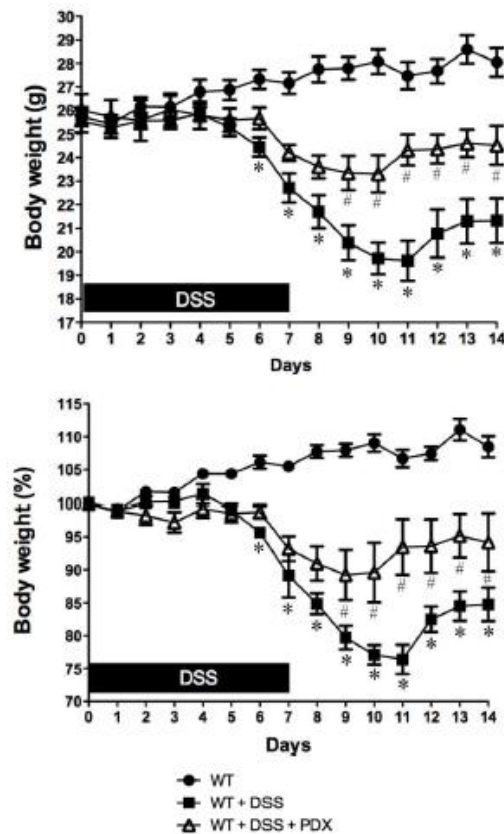
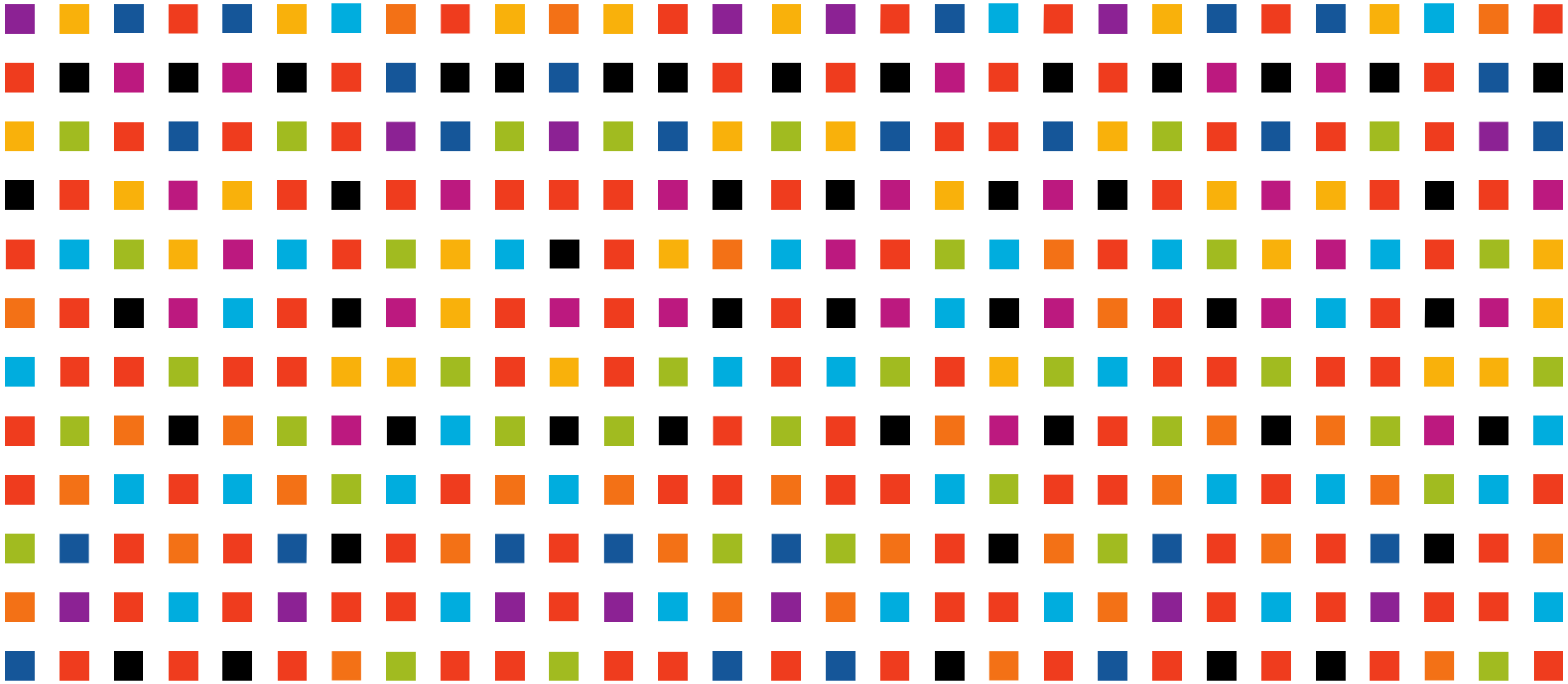


Figure: recovery is greater in mice treated with Polydextrose (PDX) **after** DSS-induced colitis (**Left panel**), with earlier weight gain, and that PDX treatment significantly increased colon length after DSS exposure (**Right panel**). \*:  $P < 0.05$  versus WT; #:  $P < 0.05$  versus DSS.



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