

Fecal Microbiota Transplantation for Immune Checkpoint Inhibitor-Colitis

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Society for Immunotherapy of Cancer

#SITC2018

THE UNIVERSITY OF TEXAS
MDAnderson
Cancer Center

Presenter Disclosure Information

Yinghong Wang MD PhD

No Relationships to Disclose

POSITION ARTICLE AND GUIDELINES

Open Access



Managing toxicities associated with immune checkpoint inhibitors: consensus recommendations from the Society for Immunotherapy of Cancer (SITC) Toxicity Management Working Group

I. Puzanov^{1†}, A. Diab^{2†}, K. Abdallah³, C. O. Bingham III⁴, C. Brogdon⁵, R. Dadu², L. Hamad¹, S. Kim², M. E. Lacouture⁶, N. R. LeBoeuf⁷, D. Lenihan⁸, C. Onofrei⁹, V. Shannon², R. Sharma¹, A. W. Silk¹², D. Skondra¹⁰, M. E. Suarez-Almazor², Y. Wang², K. Wiley¹¹, H. L. Kaufman^{12†}, M. S. Ernstoff^{1††} and on behalf of the Society for Immunotherapy of Cancer Toxicity Management Working Group



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JOURNAL OF CLINICAL ONCOLOGY

ASCO SPECIAL ARTICLE

NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®)
in partnership with the American Society of Clinical Oncology (ASCO)

Management of Immunotherapy-Related Toxicities

(Immune Checkpoint Inhibitor-Related Toxicities)

Version 1.2018 — February 14, 2018

NCCN.org

Management of Immune-Related Adverse Events in Patients Treated With Immune Checkpoint Inhibitor Therapy: American Society of Clinical Oncology Clinical Practice Guideline

Julie R. Brahmer, Christina Lacchetti, Bryan J. Schneider, Michael B. Atkins, Kelly J. Brassil, Jeffrey M. Caterino, Ian Chau, Marc S. Ernstoff, Jennifer M. Gardner, Pamela Ginex, Sigrun Hallmeyer, Jennifer Holter Chakrabarty, Natasha B. Leighl, Jennifer S. Mammen, David F. McDermott, Aung Naing, Loretta J. Nastoupil, Tanyanika Phillips, Laura D. Porter, Igor Puzanov, Cristina A. Reichner, Bianca D. Santomasso, Carole Seigel, Alexander Spira, Maria E. Suarez-Almazor, Yinghong Wang, Jeffrey S. Weber, Jedd D. Wolchok, and John A. Thompson in collaboration with the National Comprehensive Cancer Network

Current Treatment Options

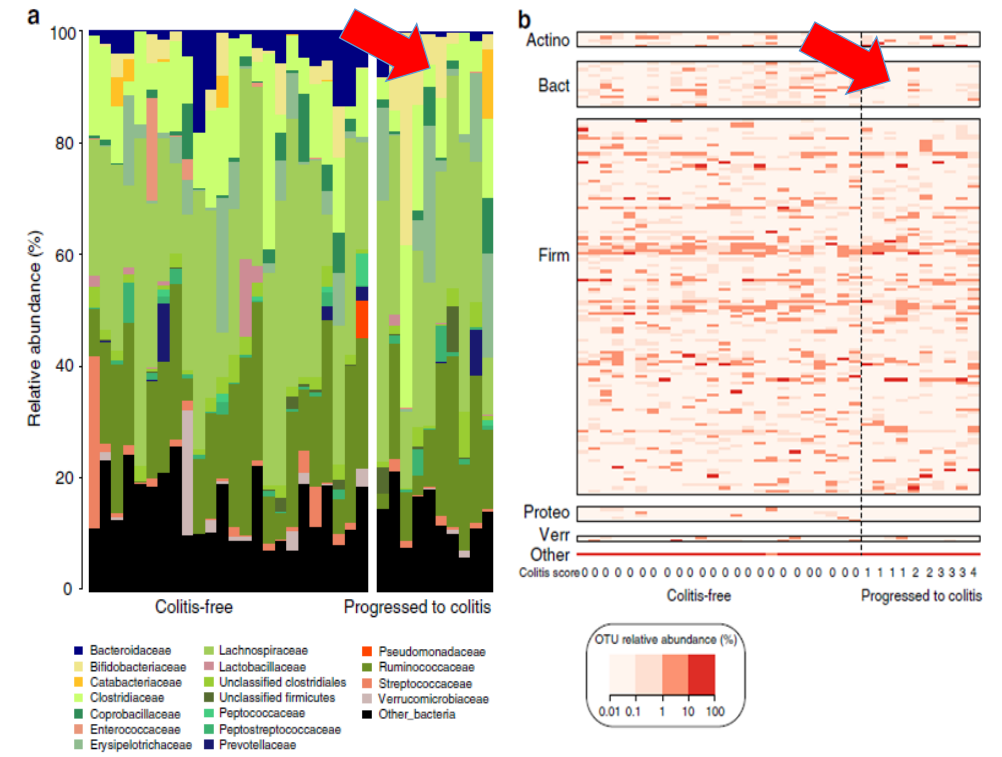
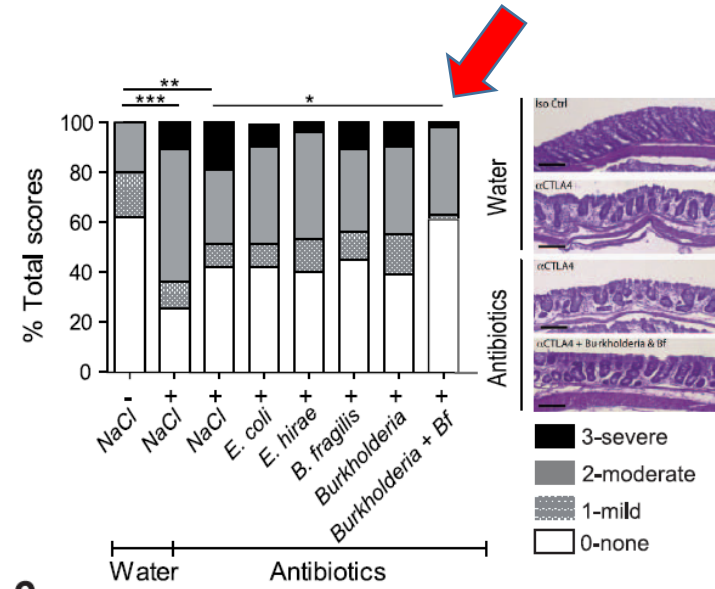
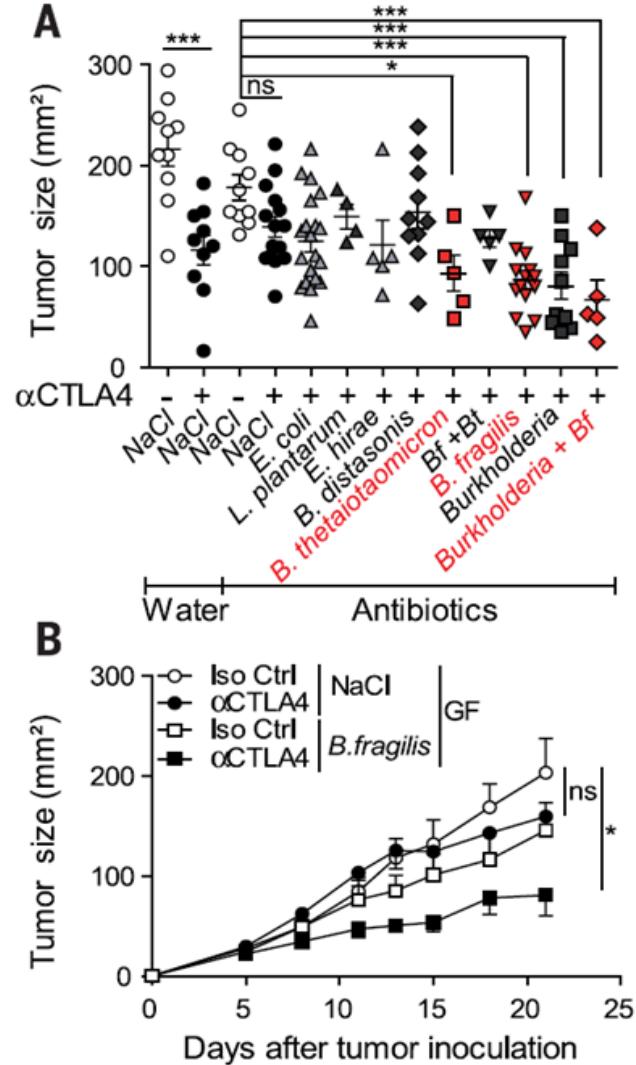
Recommended therapy:

- Steroid
- Infliximab
- Vedolizumab

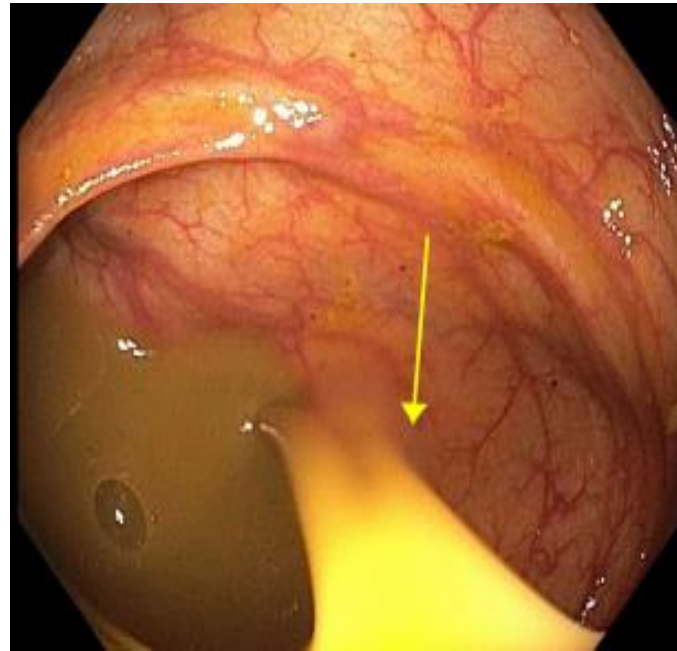
Limitations:

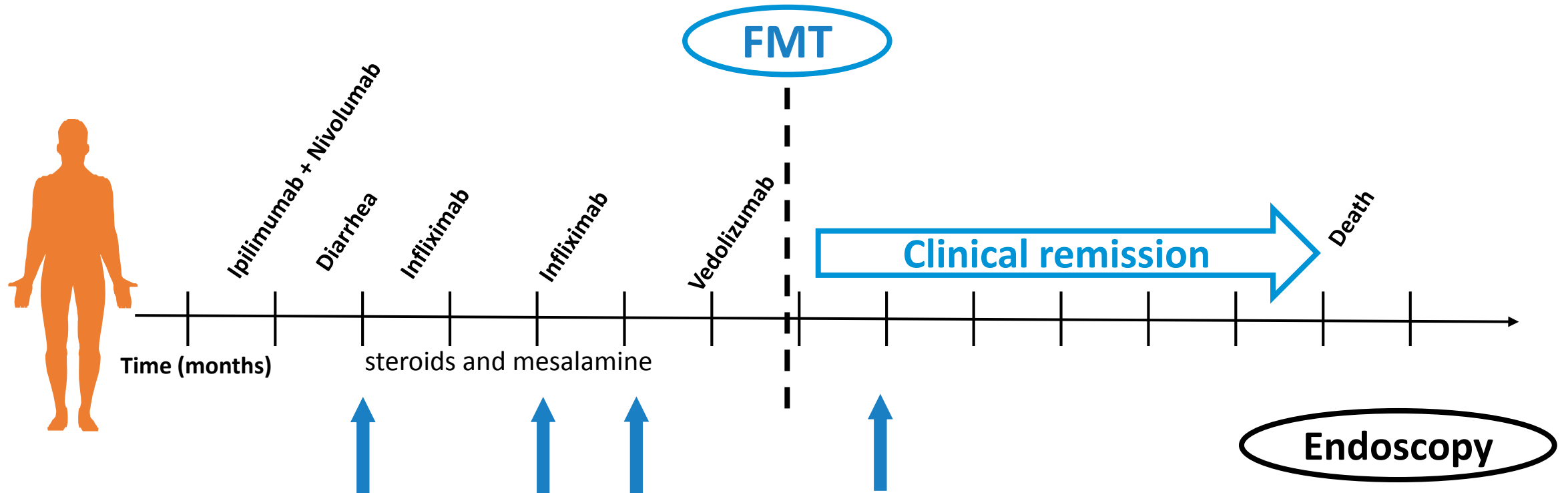
- Unclear treatment target
- Immunosuppression
- ↓ ICI anti-tumor effect
- Refractory cases

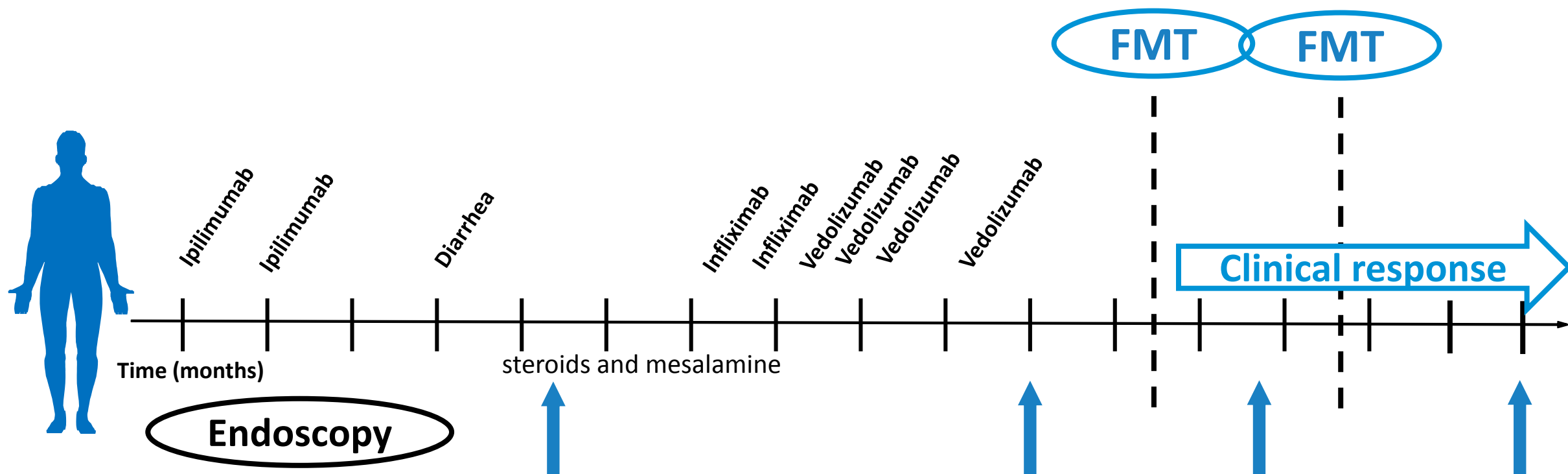
Microbiome Role in ICI–Colitis



Fecal Microbiota Transplantation

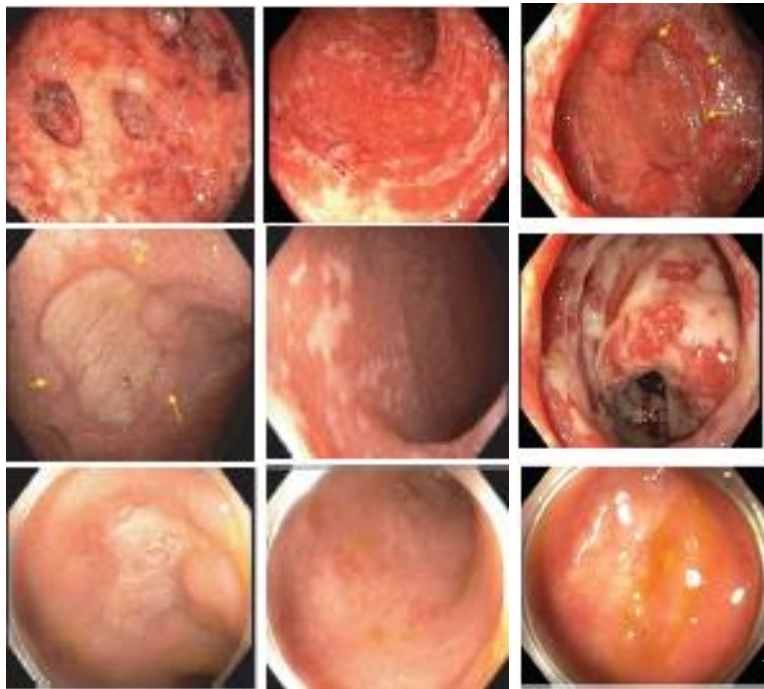






Endoscopic Healing After FMT

Patient 1



Diagnosis

After steroid
Infliximab x 2
Vedolizumab x 1

Post-FMT

Patient 2



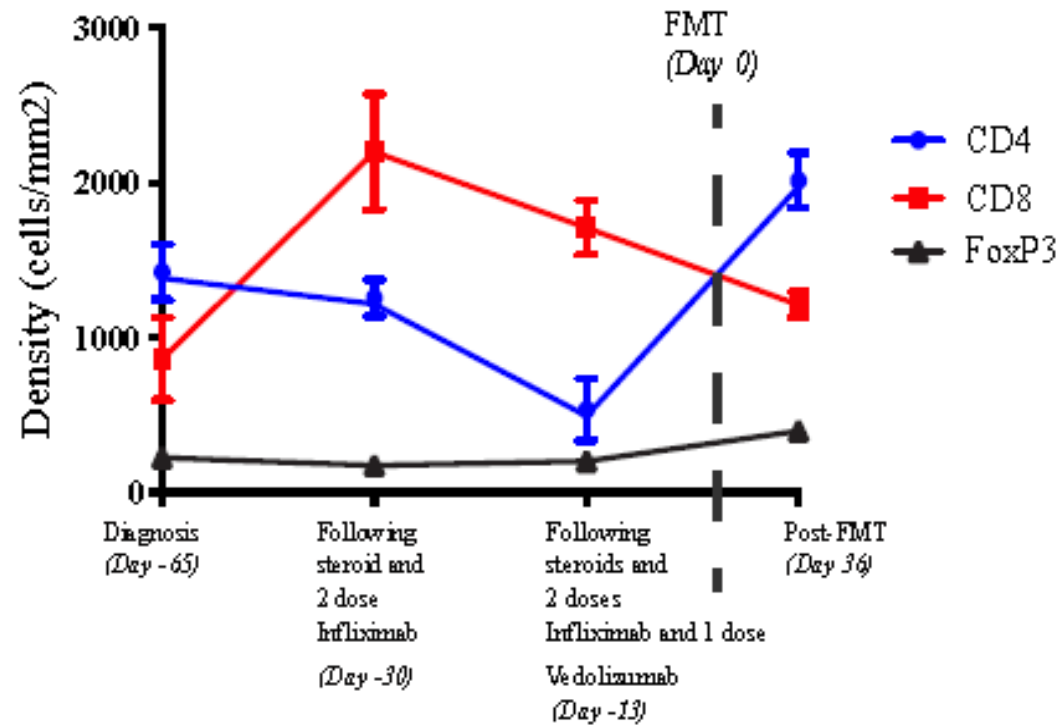
Diagnosis

After steroid
Infliximab x 2
Vedolizumab x 4

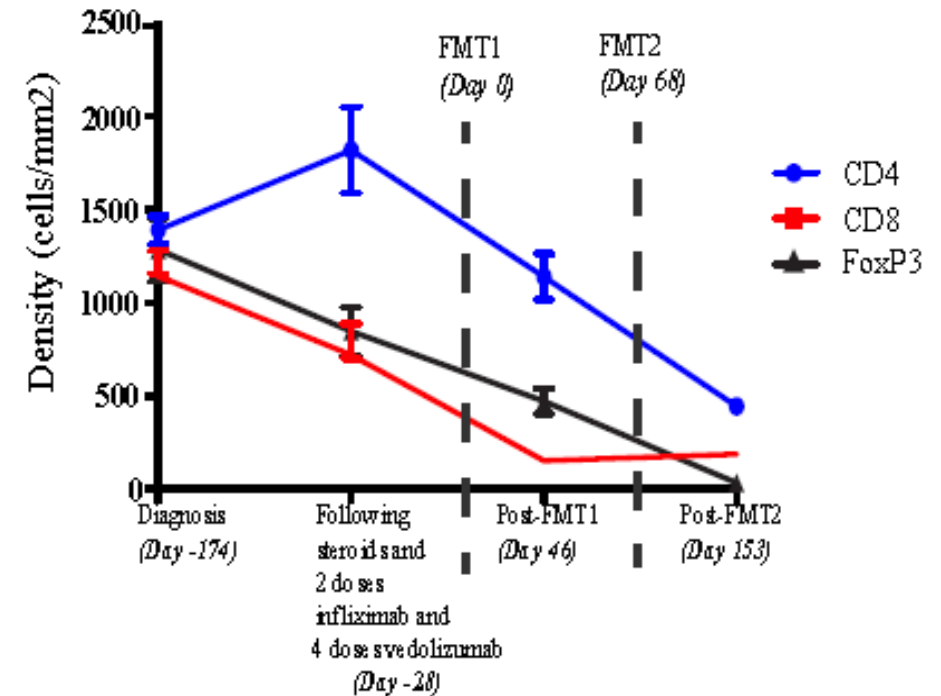
Post-FMT1

Post-FMT2

Quantification of Immune Cells in Colon Tissue



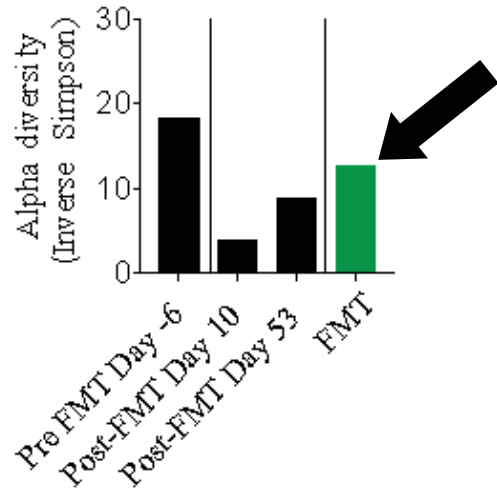
Patient 1



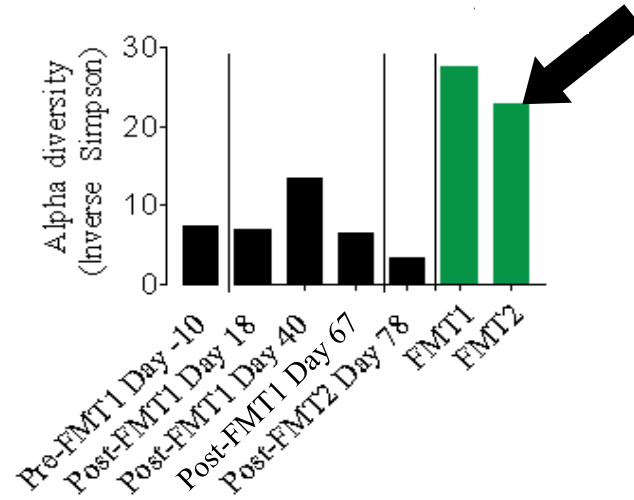
Patient 2

Stool Microbiome

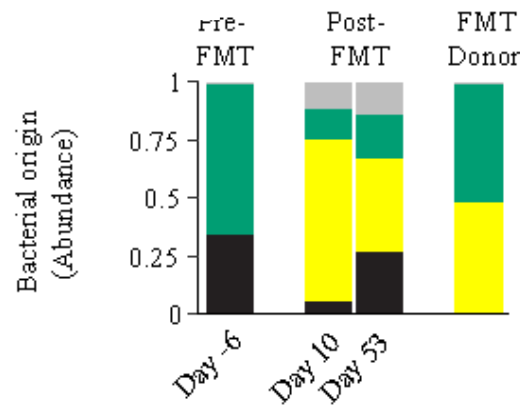
Patient 1



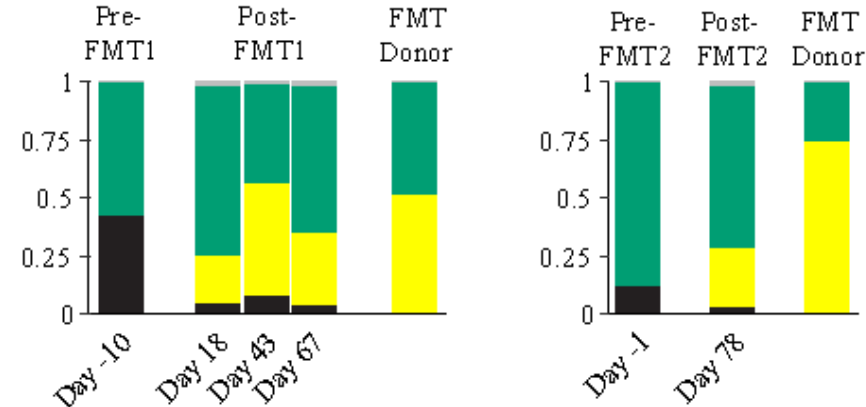
Patient 2



Patient 1

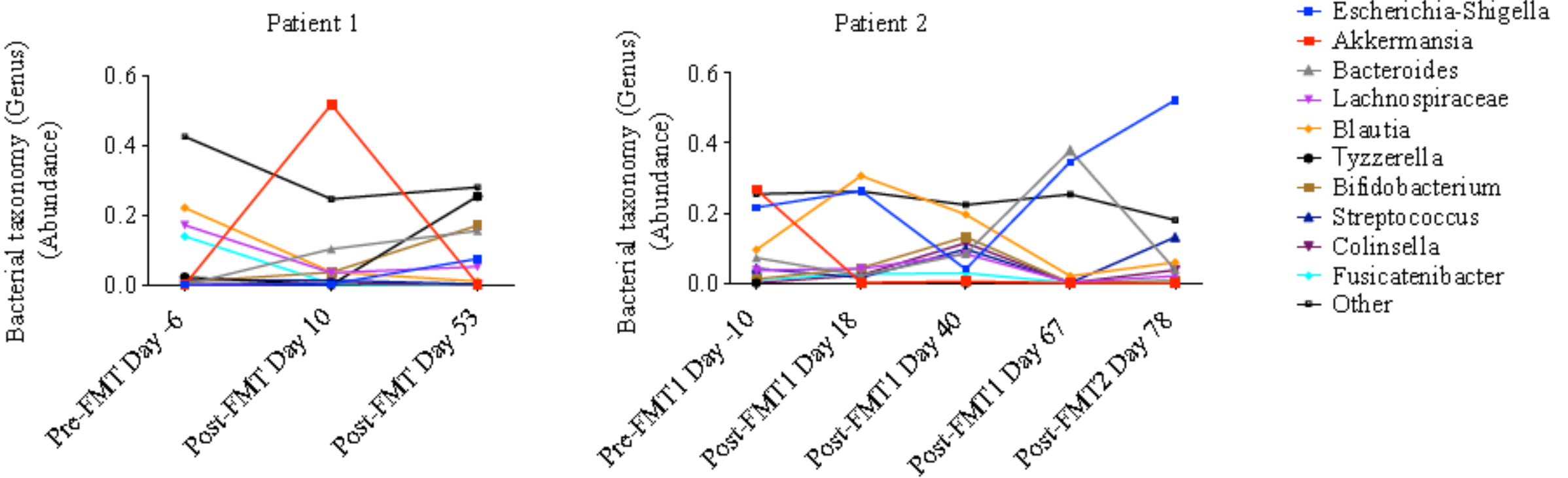


Patient 2



■ Patient pre-FMT
 ■ Donor
 ■ Both pre-FMT and donor
 ■ Neither

Stool Microbiome Taxonomy



Lessons and Take Home Messages

- Refractory ICI–colitis
- Stool microbiome dysbiosis
- FMT is safe and effective
- Healthy microbiome restoration
- Large–scale studies