



VINCENT YOUNG

CANDIDATE STATEMENT

It is my honor to be nominated as a candidate for the COMS-elected member of the Board of Directors of ASM. As a physician-scientist studying host-microbe interactions, the ASM played a key role in my training and development. My ASM-related activities, ranging from attending ASM Microbe, publishing in and reviewing for ASM journals, traveling to branches as an ASM Distinguished Lecturer and as a member of COMS have all fostered my career as an infectious diseases physician studying microbiology as it relates to human health and disease. As the “think tank” for the Society, COMS helps shape the future of the ASM. Having served as a COMS interdisciplinary counselor and now the chair of COMS, I am in the position to represent the broad perspective of a significant portion of the Society as a member of the Board. I look forward to the opportunity to continue to serve the ASM.

ASM-RELATED ACTIVITIES

- Council on Microbial Sciences (COMS), Chair, 2022-2023
- Nominating Committee, 2021 – 2023 (stepped down when nominated for COMS-Elected Board Director)
- Senior Editor, *mSphere*, 2019-2024
- Council on Microbial Sciences (COMS), Division Interdisciplinary Councilor, 2018-2022
- American Academy of Microbiology Fellow, elected 2017
- Associate Editor, *Infection and Immunity*, 2014 - 2019
- Editorial Board, *Infection and Immunity*, 2011 - 2014
- American Board of Medical Microbiology (ABMM), Committee Member, 2006-2009

Vincent Bengan Young
William Henry Fitzbutler Collegiate Professor
University of Michigan Medical School
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Education and Training

Education

09/1981-06/1985 BS, Massachusetts Institute of Technology, Cambridge, MA
09/1985-06/1992 MD, PhD, Department of Microbiology & Immunology, Stanford University School of Medicine, Stanford, CA

PostDoctoral Training

07/1992-06/1995 Residency, Internal Medicine, Massachusetts General Hospital, Boston, MA
07/1995-06/1997 Fellowship, Infectious Diseases, Massachusetts General Hospital, Boston, MA
07/1996-06/2000 Postdoctoral Fellow, Microbiology, Massachusetts Institute of Technology, Cambridge, MA

Certification And Licensure

Certification

1995-2016 American Board of Internal Medicine - Internal Medicine
1997-2027 American Board of Internal Medicine - Infectious Diseases

Licensure

1995-2002 State of Massachusetts, Medical License
2001-present DEA Registration
2001-present State of Michigan, Controlled Substance
2001-present State of Michigan, Medical License

Academic, Administrative, Clinical, Research and Military Appointments

Academic Appointments

07/1999-06/2000 Instructor, Harvard University-Harvard Medical School, Boston, MA
07/1999-06/2000 Research Associate, Massachusetts Institute of Technology Division of Bioengineering and Environmental Health, Cambridge, MA
09/2001-08/2007 Assistant Professor, Michigan State University, East Lansing, MI
09/2007-08/2010 Assistant Professor in Internal Medicine - Infectious Diseases, University of Michigan, Ann Arbor, MI
06/2008-08/2010 Assistant Professor in Microbiology and Immunology, University of Michigan, Ann Arbor, MI
09/2010-08/2016 Associate Professor in Microbiology and Immunology, University of Michigan, Ann Arbor, MI
09/2010-08/2016 Associate Professor in Internal Medicine - Infectious Diseases, University of Michigan, Ann Arbor, MI (Tenured)
09/2016-present William Henry Fitzbutler Collegiate Professor, Department of Internal Medicine in the Division of Infectious Diseases, University of Michigan, Ann Arbor, MI (Tenured)
09/2016-present Professor in Department of Microbiology & Immunology, University of Michigan, Ann Arbor, MI

Clinical Appointments

07/1999-06/2000 Clinical Assistant, Harvard University-Harvard Medical School, Boston, MA

Clinical Interests

- Healthcare-associated infections including *C. difficile* infections and infections with multidrug-resistant bacteria.
- Foodborne illnesses

Research Interests

- Host-microbe interactions with a focus on the gastrointestinal tract.
- Microbial ecology of the indigenous microbiota
- *C. difficile* colitis: relationship between antibiotics, changes in gut microbiota and disease
- Bacterial pathogenesis of intestinal microbes
- Systems biology of healthcare-associated infections

Grants

Current Grants

1R01AI162787-01A1: The microbiome and aging in Clostridioides difficile infection NIAID- 21-PAF08031
Young, PI
05/2022-04/2026. \$3,732,930

1R01HL153028 - 01A1: Microbiota Regulation of Pulmonary Complications Post-HCT NIH-DHHS-US- 20-PAF08676
Co-I with Effort (Principal Investigator: Zhou, Xiaofeng)
09/2021-08/2026. \$1,941,600

Nitrogenous disinfection by-products and their metabolic impact on human gut microbiota NIH-DHHS-US- 21-PAF00072
Co-I without Effort (Principal Investigator: Adejumo, Hollie Adeola)
09/2021-08/2024. \$107,227

NINTH AMENDMENT TO RESEARCH AG: The Relationship between Overall Health and Gut/Skin Microbiome in Healthy Middle-aged Adults Access Business Group, LLC- AWD019033
Yung, Co-PI
09/2021-08/2022. \$299,868 (\$299,868)

U2CDK110768: Michigan Mouse Metabolic Phenotyping Center NIH-DHHS-US- 21-PAF04186
Co-I with Effort (Principal Investigator: Low, Malcolm J)
07/2021-06/2023. \$539,979

1U54CK000607-00: Chicago Prevention and Epicenter III SubK-CDCP-DHHS-US through a consortium with Rush University Medical Center- 20-PAF05870
Co-I with Effort (Principal Investigator: Snitkin, Evan Sean)
06/2021-05/2026. \$640,758 (\$106,545)

6U54CK000607-01: Dynamics of the Resistome in ICU Patients SubK-CDCP-DHHS-US through a consortium with Rush University Medical Center- 20-PAF04694
Young, Vincent Bensen, Co-PI
06/2021-05/2024. \$456,501 (\$152,167)

EF – 202542: MTM 2: Combining structural informatics and crosslinking mass spectrometry to predict the key protein-protein interactions shaping symbiotic microbial communities NSF-US- 20-PAF05698
Co-I with Effort (Principal Investigator: Peter Louis Freddolino)
12/2020-11/2024. \$2,899,960 (\$724,990)

Award Letter: Fecal Microbiota Transplant for the Treatment of Hepatic Encephalopathy American College of Gastroenterology- 20-PAF08666
Co-I without Effort (Principal Investigator: Patricia Pringle Bloom)
07/2020-06/2023. \$300,000 (\$100,000)

R01 HS 27431-01: Data-Driven Interventions for Reducing C. difficile Incidence AHRQ-DHHS-US- 19-PAF07244
Co-I with Effort (Principal Investigator: Krishna Rao)
03/2020-12/2024. \$2,402,891 (\$500,000)

3 R01 ES030049-02S1: Mapping the ALS Exposome to Gain New Insights into Disease Risk and Pathogenesis NIH-DHHS-US- 19-PAF01624; 20-PAF07438
Co-I without Effort (Principal Investigator: Eva L Feldman)
01/2020-10/2024. \$3,530,635

Submitted Grants

U19AI172527: The Clostridioides difficile Infection Systems Biology Program NIAID- 22-PAF02206
Young, PI
01/2023-12/2027. \$11,464,794

The impact of intestinal segmentation and commensal bacteria on human astrovirus infection NIH- 22-PAF03031
Co-I (Principal Investigator: Wobus, Christiane E)
07/2022-06/2027. \$3,033,234 (\$377,122)

Past Grants

U01 AI124255: Systems biology of Clostridium difficile infection NIH-DHHS-US
Young, Vincent Bensen (Contact); Schloss, Patrick D, PI
03/2016-02/2021. \$9,179,019 (\$2,057,620)

U01 AI124255-AS1: Systems biology of Clostridium difficile infection NIH-DHHS-US
Young, Vincent Benson (contact); Schloss, Patrick D, PI
03/2016-02/2021. \$75,000 (\$75,000)

U01 AI124255-AS2: Diversity of C. difficile in three US health systems NIH-DHHS-US
Young, Vincent Bensen, PI
03/2017-02/2021. \$300,000 (\$300,000)

U01 AI124255-AS3: Application of machine learning approaches to the study of Clostridium difficile infection. NIH-DHHS-US
Young, Vincent Bensen, PI
03/2016-02/2021. \$288,499

U19 AI116482: Engineered human intestinal organoids: a modular system to model enteric disease NIH-DHHS-US
Young, Vincent Bensen (contact PI) ;Spence, Jason; Takayama, Shuichi; Wobus, Christiane E, PI
03/2015-02/2021. \$6,381,308 (\$1,226,729)

R01 CA203542: Cellular and molecular mechanisms of target tissue resistance for mitigating GVHD severity NIH-DHHS-US
Co-I with Effort (Principal Investigator: Reddy, Pavan R)
08/2016-07/2021. \$2,387,825 (\$477,565)

U2C DK110768: Michigan Mouse Metabolic Phenotyping Center: Microbiome core NIH-DHHS-US
Co-I with Effort (Principal Investigator: Low, Malcolm J)
08/2016-06/2021. \$5,643,833 (\$1,161,103)

000481: Microbiome and Clinical Predictors of Enteric MDRO Acquisition (MArIMbA) CDC EpiCenters Program
CDC subcontract through Rush University Medical Center
Young, Vincent Bensen, PI
08/2016-06/2020. \$807,186 (\$189,915)

K24 AG050685: Preventing Infections and Antimicrobial Resistance in the Aging Population: Translational Research and Training Program NIH-DHHS-US
Co-I with Effort (Principal Investigator: Mody, Lona)
08/2015-03/2020. \$801,864 (\$131,206)

75D30118C02915: Development of reproducible, quantitative methods based on shotgun metagenome sequencing for assessment of risk of microbial transmission CDC, Subcontract through Northwestern University- AWD011505 / 18-PAF07881
Hartmann, PI
09/2018-09/2019. \$104,277 (\$104,277)

5 P30 DK034933-35: University of Michigan Center for Gastrointestinal Research NIH-DHHS-US- 10-PAF02474; 16-PAF07664
Co-I without Effort (Principal Investigator: Owyang, Chung)
02/2011-05/2022. \$5,724,098 (\$972,429)

ASSLDF 50035: Fecal Microbiota Transplantation for the Treatment of Hepatic Encephalopathy American Association for the S- 21-PAF01168
Co-I without Effort (Principal Investigator: Patricia Pringle Bloom)
07/2020-06/2021. \$26,000 (\$26,000)

5 U01 AI124255-02: Systems biology of Clostridium difficile infection NIH-DHHS-US- 16-PAF07856; 18-PAF07374; 17-PAF07731; 15-PAF05610
Vincent Bensen Young, PI
03/2016-04/2021. \$9,842,518 (\$2,057,620)

5 U01 AI124255-05: SysBio Admin Supplement NIH-DHHS-US- 16-PAF07856; 18-PAF07374; 15-PAF05610; 17-PAF07731
Vincent Bensen Young, PI
03/2016-04/2021. \$9,842,518 (\$300,000)

5 U01 AI124255-02: Systems biology of Clostridium difficile infection NIH-DHHS-US- 18-PAF07374; 16-PAF07856; 17-PAF07731; 15-PAF05610
Vincent Bensen Young, PI
03/2016-04/2021. \$9,842,518 (\$2,057,620)

5 U01 AI124255-05: SysBio Admin Supplement NIH-DHHS-US- 18-PAF07374; 16-PAF07856; 15-PAF05610; 17-PAF07731
Vincent Bensen Young, PI
03/2016-04/2021. \$9,842,518 (\$300,000)

3 U01 AI124255-03S1: SydDiff U01 Administrative Supplement NIH-DHHS-US- 17-PAF07731; 15-PAF05610; 18-PAF07374; 16-PAF07856
Vincent Bensen Young, PI
03/2016-02/2021. \$9,842,518

3 U01 AI124255-01S1: Application of machine learning approaches to the study of Clostridium difficile infection. NIH-DHHS-US- 17-PAF07731; 15-PAF05610; 16-PAF07856; 18-PAF07374
Vincent Bensen Young, PI
03/2016-02/2021. \$9,842,518

R21 AI120599: Host and Microbial Biomarkers Related to the Development of Complicated Clostridium difficile Infection NIH-DHHS-US
Young, Vincent Bensen, PI
07/2015-06/2018. \$426,250 (\$232,500)

Analysis of microbial ecology in cecal and fecal samples from hamsters infected with Clostridium difficile and treated with anti-toxin mAbs or antibiotics MedImmune LLC- 15-PAF06617
Young, Vincent Bensen, PI
07/2015-06/2016. \$65,395 (\$65,395)

000161: *Chicago Prevention and Intervention Epicenter Supplement (Chicago PIE) LTACH Microbiome Study 2* SubK-CDCP-DHHS-US through a consortium with Hektoen Institute for Medical- 16-PAF04645
Young, Vincent Bensen, PI
09/2014-02/2016. \$58,000 (\$58,000)

1126-324-UM-01: *LTACH Microbiome Study 2* Hektoen Institute for Medical Research- 14-PAF06091
Young, Vincent Bensen, PI
09/2014-02/2016. \$255,000 (\$255,000)

1126-324-UM-01: *Chicago Prevention and Intervention Epicenter Supplement (Chicago PIE) LTACH Microbiome Study 2* CDC subcontract through Hektoen Institute for Medical
Young, Vincent Bensen, PI
09/2014-02/2016. \$58,000 (\$58,000)

U19 AI090871: *Bacterial Genomes from the Clostridium difficile Cooperative Research Center* NIH-DHHS-US- 14-PAF06552
Young, Vincent Bensen, PI
08/2014-07/2015. \$199,589 (\$199,589)

Recharge 942: *RECHARGE - Microbiome Various Sponsor Billing Various Sponsors-* 21-PAF07012
Vincent Bensen Young, PI
07/2014-06/2021. (\$64,500)

RECHARGE Rate ID 942. *MSMBL Various Sponsor Billing: RECHARGE - MSMBL Various Sponsor Billing Various Sponsors-* 20-PAF00138
Vincent Bensen Young, PI
07/2014-06/2020. (\$161,250)

1074-324-UM-01: *LTACH Microbiome Study - subaward of Chicago Prevention and Intervention Epicenter (C-PIE)* CDC subcontract through Hektoen Institute for Medical Research- 14-PAF05461
Young, Vincent Bensen, PI
03/2014-08/2015. \$134,212 (\$134,212)

Amendment: *Assessment of the Impact of Stelara Treatment on Fecal Microbiota in Patients with Crohn's Disease* Janssen Research and Development- 13-PAF07077
Young, Vincent Bensen, PI
07/2013-09/2013. \$43,540 (\$43,540)

7 R01 HG004906-04: *Cultivation and Characterization of Microaerobes from the Human Microbiome* NIH-DHHS-US- 13-PAF03502
Schmidt, Thomas M;Young, Vincent Bensen, PI
04/2013-07/2013. \$116,320 (\$116,320)

R01 GM099549: *Impacts of Molecular Oxygen on the Structure and Function of the Intestinal Microbiome* NIH-DHHS-US
Schmidt, Thomas M;Young, Vincent Bensen, Co-PI
03/2013-02/2017. \$1,116,657 (\$277,407)

Research Agreement: *Assessment of the impact of Stelara treatment on fecal microbiota in patients with Crohn's Disease* Janssen Research and Development- 15-PAF00262
Patrick D Schloss, PI
08/2012-09/2018. (\$180,495)

1 K01 AI097281-01A1: *Phylogenomic epidemiology of Clostridium difficile* NIH-DHHS-US- 12-PAF02011
Co-I without Effort (Principal Investigator: Walk, Seth Taylor)
05/2012-08/2012. \$509,300 (\$101,860)

K01 AI097281: *Phylogenomic epidemiology of Clostridium difficile* NIH-DHHS-US
Co-I without Effort (Principal Investigator: Walk, Seth Taylor)
05/2012-04/2013. \$509,300 (\$101,860)

Assessment of the Impact of Stelara Treatment on Fecal Microbiota in Patients with Crohn's Disease Janssen Research and Development- 12-PAF03503
Patrick D Schloss, PI
12/2011-12/2012. \$255,298 (\$79,364)

Investigator-Initiated Research Agreement: Effects of Tigecycline on the Murine Intestinal Microbiome and Experimental Clostridium difficile Infection Pfizer, Inc.- 11-PAF06145
Young, Vincent Bensen, PI
11/2011-11/2012. \$99,840 (\$99,840)

RESEARCH PROJECT AGREEMENT TO POST DOC MASTER: Immune system-microbiota interactions and IBD Johnson & Johnson Pharmaceutic- 11-PAF01003
Robinson, Courtney, PI
05/2011-05/2013. \$171,990 (\$85,995)

Postdoctoral Res Fellowship: Immune system-microbiota interactions and IBD Johnson & Johnson Pharmaceutic
Robinson, Courtney, Co-PI
05/2011-05/2013. \$171,990 (\$85,995)

P30 DK034933: Gastrointestinal Hormone Research Core Center NIH-DHHS-US- 10-PAF02474
Co-I with Effort (Principal Investigator: Owyang, Chung)
02/2011-11/2015. \$5,724,098 (\$1,080,433)

5 R21 AI087869-02: The Role of the Microbiome in the Development/Prevention of Food Allergies NIH-DHHS-US- 09-PAF03419
Co-I without Effort (Principal Investigator: Huffnagle, Gary B)
09/2010-08/2012. \$426,375 (\$232,000)

3 R21 HG005077-02S1: Microfluidic Co-Cultivation and Metagenomic Dissection of the Gut Microbiota Supplement NIH-DHHS-US- 10-PAF01482; 12-PAF07921
Co-I with Effort (Principal Investigator: Lin, Nina)
09/2010-06/2013. \$398,147

R21 HG005077: Microfluidic Co-Cultivation and Metagenomic Dissection of the Gut Microbiota Supplement NIH-DHHS-US
Co-I with Effort (Principal Investigator: Lin, Nina)
09/2010-06/2013. \$200,000

R21 AI087869: The Role of the Microbiome in the Development/Prevention of Food Allergies NIH-DHHS-US
Co-I without Effort (Principal Investigator: Huffnagle, Gary B)
09/2010-08/2012. \$426,375 (\$232,000)

5 UH2 DK083993-04: The Role of the Gut Microbiota in Ulcerative Colitis NIH-DHHS-US- 08-5937
Young, Vincent Bensen, PI
08/2010-07/2014. \$9,383,800 (\$1,087,800)

U19 AI090871: Clostridium difficile Cooperative Research Center NIH-DHHS-US
Young, Vincent Bensen, PI
08/2010-07/2016. \$7,614,615

U01 HL098961: Understanding the Lung Microbiome in HIV-infected and HIV-uninfected individuals NIH-DHHS-US
Curtis, Jeffrey L; Young, Vincent Bensen, PI
09/2009-07/2014. \$3,764,532 (\$731,923)

RC1 HL100809: The Lung Microbiota in Cystic Fibrosis NIH-DHHS-US
Lipuma, John Joseph (contact PI) ; Li, Jun; Young, Vincent Bensen, PI
09/2009-08/2011. \$998,813

2496: *Microbial Shifts During Helminthic Therapy of Crohn's Disease in Mice* Crohn's and Colitis Foundation- 09-PAF01668

Ewing, Sarah Ang-Sheng, PI
06/2009-08/2009. \$2,500 (\$2,500)

61-1438UM2: *Microbial Ecology of Inflammatory Bowel Disease* SubK-NIH-DHHS-US through a consortium with Michigan State University- 08-2542

Young, Vincent Bensen, PI
09/2008-09/2009. \$136,072 (\$51,390)

0049506: *Development of New Technologies Needed for Studying the Human Microbiome* SubK-NIH-DHHS-US through a consortium with Michigan State University- 08-3791

Young, Vincent Bensen, PI
09/2008-07/2012. \$378,249 (\$131,425)

R01 HD057176: *Role of misoprostol in Clostridium sordellii endometritis in a rodent model* NIH-DHHS-US

Co-I with Effort (Principal Investigator: Aronoff, David)
07/2008-05/2013. \$1,636,901 (\$326,785)

5 R01 DK070875-06: *Microbial Ecology of Helicobacter-Induced Colitis (F018587)* NIH-DHHS-US- 08-1331; 08-6014; 09-PAF04270

Young, Vincent Bensen, PI
09/2007-10/2012. \$1,241,514

U01 AI075396: *Comprehensive Molecular Diagnosis for Food and Waterborne Enteropathogens* NIH-DHHS-US- 08-1993

Young, Vincent Bensen, PI
09/2007-07/2011. \$716,164 (\$185,692)

61-6423-953: *Identification of Probiotic Lactobacillus Reuteri Strains for the Treatment of Pediatric Diarrhea* Gerber Foundation/consortium with Michigan State University- 08-1614

Young, Vincent Bensen, PI
09/2007-05/2009. \$70,981 (\$35,372)

5 P30 DK034933-35: *Gastrointestinal Hormone Research Core Center* NIH-DHHS-US- 16-PAF07664; 10-PAF02474

Co-I without Effort (Principal Investigator: Owyang, Chung)
12/1996-05/2022. \$5,724,098 (\$1,080,433)

Honors and Awards

International

2017	Fellow: American Academy of Microbiology
2020-2021	Community Leader. American Society for Microbiology, Host Microbe Biology Community
2022-2023	Chair, Council on Microbial Sciences, American Society for Microbiology

National

1983	Alpha Tau Omega Fraternity Foundation Scholarship
1984	Alpha Tau Omega Fraternity Research Grant
1985-1992	Medical Scientist Training Program Scholarship/Grant
1998	Fellow Abstract Competition, Infectious Diseases Society of America
2019	Innovator Award for C. difficile. The Peggy Lillis Foundation

Institutional

1992	Dean's Award for Clinical Excellence, Stanford University of Medicine
2002	MSU IRGP New Investigator Grant, Michigan State University Foundation
2010	Jerome W. Conn Award for Excellence In Research, University of Michigan Department of Internal Medicine

2017-2021 William Henry Fitzbutler Collegiate Professorship
2017 MICHR Distinguished Clinical and Translational Research Mentor Award

Memberships in Professional Societies

1997-present Member, American Association for the Advancement of Science
1997-present Member, American Society for Microbiology
1997-present Member, Infectious Diseases Society of America
2003-present Member, Anaerobe Society of the Americas
2006-2009 Member, Board of Directors, American Board of Medical Microbiology

Editorial Positions, Boards, and Peer-Review Service

Study Sections

International

2007 Alberta Heritage Foundation for Medical Research
2009 Challenge Grant mail reviewer

National

2003 USDA Proposal Animal Health and Well-Being Program
2006 NSF Microbial Observatories
2007-2009 AHA Immunology and Microbiology Study section
2008 NIH Bacterial Pathogenesis (BACP) Study section (Ad Hoc)
2008 NIH ZRG1 GGG-E (52) Study section
2010-2011 NIH Gastrointestinal Mucosal Pathobiology (GMPB) Study section (Ad Hoc)
2011-2015 NIH Gastrointestinal Mucosal Pathobiology (GMPB) Study section standing member

Institutional

2003-2005 MSU-Intramural Research Grants Program
2003 MSU-CVM Companion animal fund

Editorial Boards

2009-2013 Interdisciplinary Perspectives on Infectious Diseases
2010-2014 Infectious Diseases Reports
2011-2014 Infection and Immunity
2012-present Microbiome
2014-2019 Associate Editor, Infection and Immunity
2019-present Senior Editor, mSphere

Journal Reviewer

2007-present Gastroenterology, Applied and Environmental Microbiology, Clinical Infectious Diseases, PNAS, Nature, Science Translational Medicine, Clinical Microbiology & Infection, mBio, Nature Reviews Microbiology, PLoS Pathogens, Journal of Infectious Diseases, JAMA, Journal of Infectious Diseases (Ad Hoc)
2008 Guest Editor: Interdisciplinary Perspectives on Infectious Diseases, Special issue; The Human Microbiome and Infectious Diseases: Beyond Koch (Ad Hoc)

Teaching

Graduate Student

01/2002-06/2004 Brooke Dennison, MS, Michigan State University
05/2002-05/2005 Jason Pratt, MS, Michigan State University

09/2003-08/2006	Heather Wood, MS, Michigan State University
06/2004-10/2009	Alicia Cotey, MS, Michigan State University
01/2005-08/2010	Nabeetha Nagalingam, PhD, Michigan State University
06/2008-08/2012	Angela Reeves-Hopkinson, PhD, University of Michigan
01/2012-12/2017	Jhansi Leslie, PhD, University of Michigan
09/2012-02/2014	Cassie Schumacher, MS, University of Michigan
01/2016-07/2018	Emily Wolfrum, MS, MPH, University of Michigan
09/2016-05/2019	Julie Gilbert, MS, MPH, University of Michigan
09/2016-07/2020	Michael Dieterle, PhD, University of Michigan
07/2017-present	Matt Schnizlein, PhD, University of Michigan
07/2018-present	Madeline Barron, PhD, University of Michigan

Postdoctoral Fellow

07/2006-06/2008	Dionysios Antonopoulos, PhD, University of Michigan
02/2008-09/2011	Seth Walk, PhD, University of Michigan
09/2008-08/2011	Courtney Robinson, PhD, University of Michigan
01/2009-10/2012	Adam Nelson, PhD, University of Michigan
09/2009-08/2012	Christine Bassis, PhD, University of Michigan
09/2010-08/2013	Casey Theriot, PhD, University of Michigan
11/2011-10/2014	Mark Koenigsknecht, PhD, University of Michigan
03/2013-09/2016	Anna Seekatz, PhD, University of Michigan
09/2014-01/2019	David Hill, PhD, University of Michigan
03/2016-06/2018	Stephanie Spohn, PhD, University of Michigan
01/2017-07/2019	Josie Libertucci, PhD, University of Michigan
08/2017-04/2021	Lisa Abernathy Close, PhD, University of Michigan
10/2017-10/2021	Roberto Cieza, PhD, University of Michigan

Teaching Activity

Institutional

1988	Stanford Medical School: Teaching Assistant for Microbial Pathogenesis Course Responsible for recitations, and preparing/grading problem sets for a class of 15 advanced undergraduate and first year graduate students.
1997	Harvard Medical School: Tutor for Immunology and Infectious Diseases Course Tutor for 8 first-year medical students Met three times a week for 1.5 hours for 10 weeks total in problem-based learning environment
1998	Harvard Medical School: Lab Instructor for Immunology and Infectious Diseases Course Tutor for 9 first-year medical students Met for two 2-hour laboratory sessions
2002-2007	Michigan State University College of Human Medicine: Infectious Diseases inpatient consultation service at Sparrow Hospital (6-8 weeks a year), responsible for supervision of medical students and internal medicine residents on the service.
2002	Michigan State University College of Human Medicine: HM 511: 1 hour of lecture ("Bacterial Virulence Factors"), six weeks as preceptor for 9 second-year medical students in problem-based learning. Met three times a week for 2 hours a session
2003	Michigan State University College of Human Medicine : HM 527: 1 hour of lecture ("Helicobacter pylori") given to the second-year medical school class
2003	Michigan State University: VM 811: Designed a two-week module ("Physiology of the Gastrointestinal Tract") for the Food Safety Online Professional Masters program. The program is a masters program for 20 professionals currently working in various aspects the food industry (regulation, production, packaging etc.) Developed a curriculum that was taught via website, participated in "webtalk" instruction with the students, administered online test.

2003-2007	Michigan State University College of Human Medicine Basic Science Journal Club. Each session, a paper is discussed that has basic science techniques (e.g. micro-array technology, proteomics, SNP analysis) employed in a clinical study. Meet once a month for one hour with approximately 20 Internal Medicine Residents in the MSU Medicine Residency Program.
2003	Michigan State University College of Human Medicine: HM 511: 1 hour of lecture ("Bacterial Virulence Factors"), six weeks as preceptor for 8 second-year medical students in problem-based learning. Met three times a week for 2 hours a session
2004	Michigan State University College of Human Medicine: HM 527: 2 hours of lecture (" <i>Helicobacter pylori</i> " and " <i>E. coli</i> and other enteropathogenic bacteria") given to the second-year medical school class
2004-2014	Michigan State University: VM 811: Administered a two-week module ("Physiology of the Gastrointestinal Tract") for the Food Safety Online Professional Masters program. Revised the curriculum/questions, participated in "webtalk" instruction, administered/graded the online test for the module. Course is currently taught twice a year.
2004	Michigan State University College of Human Medicine: HM 511: 1 hour of lecture ("Bacterial Virulence Factors"), six weeks as preceptor for 9 second-year medical students in problem-based learning. Met three times a week for 2 hours a session
2005	Michigan State University College of Human Medicine: HM 527: 2 hours of lecture (" <i>Helicobacter pylori</i> " and " <i>E. coli</i> and other enteropathogenic bacteria") given to the second-year medical school class
2005	Michigan State University College of Human Medicine: HM 511: 1 hour of lecture ("Bacterial Virulence Factors"), six weeks as preceptor for 8 second-year medical students in problem-based learning. Met three times a week for 2 hours a session
2006	Michigan State University College of Human Medicine: HM 527: 2 hours of lecture (" <i>Helicobacter pylori</i> " and " <i>E. coli</i> and other enteropathogenic bacteria") given to the second-year medical school class
2006	Michigan State University: MMG 803-2 Topics in Integrated Microbial Biology: Administered course "Measuring Microbial Diversity" This was an advanced lecture /seminar course for graduate students and postdoctoral fellow covering statistical analysis of microbial ecology laboratory data. One of 4 course directors.
2006	Michigan State University College of Human Medicine: HM 511: 1 hour of lecture ("Bacterial Virulence Factors")
2007	Michigan State University College of Human Medicine: HM 527: 2 hours of lecture (" <i>Helicobacter pylori</i> " and " <i>E. coli</i> and other enteropathogenic bacteria") given to the second-year medical school class.
2007	Michigan State University: MMG 861 Administered course entitled "Advanced microbial pathogenesis." This is an advanced lecture/seminar course for graduate students that covered topics in molecular pathogenesis and host defense. One of 4 course directors.
2008	University of Michigan ID/Microbiology M1 Small group leader: Co-leader of a small group /laboratory section for 30 first-year medical students
2009	University of Michigan ID/Microbiology M1 Small group leader: Co-leader of a small group /laboratory section for 30 first-year medical students
2010	University of Michigan: "Science in the Clinics" reading course for graduate students and postdocs (9) on the Molecular Mechanisms of Microbial Pathogenesis training grant
2011	University of Michigan: "Science in the Clinics" reading course for graduate students and postdocs (9) on the Molecular Mechanisms of Microbial Pathogenesis training grant
2012	University of Michigan: "Science in the Clinics" reading course for graduate students and postdocs (9) on the Molecular Mechanisms of Microbial Pathogenesis training grant
2013	University of Michigan: "Science in the Clinics" reading course for graduate students and postdocs (9) on the Molecular Mechanisms of Microbial Pathogenesis training grant
2014	University of Michigan: MICRO 430, Microbial Symbiosis Team taught (with one other professor) an advanced undergraduate course in microbial symbiosis. Two 90 minutes lectures/week.

- 2015 University of Michigan: MICRO 430, Microbial Symbiosis Team taught (with one other professor) an advanced undergraduate course in microbial symbiosis. Two 90 minutes lectures/week.
- 2016 Uniformed Services University of the Health Sciences: MCO506 Prokaryotic and Eukaryotic Cell Biology and Genetics, Seminar on Microbiomes.
- 2016-present Michigan State University: VM 811 Evolution and Ecology of Foodborne Pathogens

Dissertation Committees

- 2003 Alyssa Bumbaugh, Survival of pathogenic *E. coli*, Michigan State University, Microbiology & Molecular Genetics, Committee Member
- 2004 Katie Hyma, Cytolethal distending toxin in *E. coli* lineages, Michigan State University, Microbiology & Molecular Genetics, Committee Member
- 2005 Erin Convery, DNA damage repair, Michigan State University, Cancer Biology Program, Committee Member
- 2006 Ying Du, Type III secretion in *N. gonorrhoea*, Michigan State University, Microbiology & Molecular Genetics, Committee Member
- 2007 David Lacher, Population genetics of pathogenic *E. coli*, Michigan State University, Genetics Program, Committee Member
- 2007 Teresa Large, Acid resistance in enterohemorrhagic *E. coli*, Michigan State University, Microbiology & Molecular Genetics, Committee Member
- 2008 Galeb Abu-Ali, Murine models of EHEC pathogenesis, Michigan State University, Microbiology & Molecular Genetics, Committee Member
- 2008 Zarraz Lee, Ribosomal efficiency in bacteria, Michigan State University, Microbiology & Molecular Genetics, Committee Member
- 2009 Adam Nelson, Evolution of pathogenic *E. coli*, Michigan State University, Microbiology & Molecular Genetics, Committee Member
- 2009 Kristi Whitehead, Bile responses in *Lactobacillus* species, Michigan State University, Microbiology & Molecular Genetics, Committee Member
- 2011 Brian Gray, Immune responses in *H. pylori* infection, University of Michigan, Microbiology & Immunology, Committee Member
- 2014 Joseph Zackular, Characterizing the Role of the Gut Microbiome in Colorectal Cancer, University of Michigan, Microbiology and Immunology, Committee Member
- 2015 Agnieszka Zick, DMA: Piano Pedagogy, University of Michigan, School of Music Theater & Dance, Committee Member
- 2015 Agnieszka Zick, Piano pedagogy, University of Michigan, Music, Committee Member
- 2015 Alexandria Schubert, The Role of the Gut Microbiota in Colonization Resistance against *Clostridium difficile*, University of Michigan, Microbiology & Immunology, Committee Member
- 2015 Andrew J. McDermott, Mechanisms of Neutrophil Recruitment and Immunopathology During Acute *Clostridium difficile* Colitis, University of Michigan, Microbiology and Immunology, Committee Member
- 2015 Caroline Vincent, Medication Exposures, Intestinal Microbiota Alternations and *Clostridium difficile* Colonization and Infection in Hospitalized Patients, McGill University, Microbiology and Immunology, Committee Member
- 2016 Matt Jenior, "Nutrient Niche Space of *Clostridium difficile* Across Susceptible Microbiomes and the Impact of Infection on Metabolism of the Murine Cecal Microbiota, University of Michigan, Microbiology and Immunology, Committee Member
- 2016 Nielson T. Baxter, Microbiota-based Models Enhance Detection of Colorectal Cancer, University of Michigan, Microbiology and Immunology, Committee Member
- 2017 Adriana Carolina Heredia, DMA: Music Composition, University of Michigan, School of Music Theater & Dance, Committee Member
- 2017 Iman Habbibi, DMA: Music Composition, University of Michigan, School of Music Theater & Dance, Committee Member

2017	Jhansi Leslie, Determining the Role of Adaptive Immunity and Bacterial Interactions in Protection from Clostridium difficile Infection, University of Michigan, Microbiology and Immunology, Chair
2017	Jonathan Harris, DMA: Vocal Performance, University of Michigan, School of Music Theater & dance, Committee Member
2017	Nicholas Susi, DMA: Piano Performance, University of Michigan, School of Music Theater & Dance, Committee Member
2018	Yun-Chie Wang, DMA: Music Performance, University of Michigan, School of Music Theater & Dance, Committee Member
2020	Michael Dieterle, Predicting Adverse Outcomes in Clostridioides difficile Infections and Identifying Associated Host and Microbial Drivers of Disease Severity, University of Michigan, Microbiology and Immunology, Chair
2022	Anna-Lisa Lawrence, Human intestinal organoids as a model to study intestinal infection by the foodborne pathogen Salmonella enterica, University of Michigan, Microbiology and Immunology, Committee Member
2022	Madeline Barron, Viewing Bacterial Colonization Through the Lens of Systems Biology, University of Michigan, Microbiology and Immunology, Chair
2022	Matthew Schnizlein, Examining regional differences in the gut microbiota and their effects on Clostridioides difficile colonization resistance, University of Michigan, Microbiology and Immunology, Chair
2022	Yuting Ma, DMA: Piano Performance, University of Michigan, School of Music Theater & Dance, Committee Member
Present	Amanda Photenhauer, Aggregate, Consume, Convert: Resistant Starch Digestion by Gut Symbionts, University of Michigan, Microbiology and Immunology, Committee Member
Present	Christine Ziegler, Regulation of Bacterial Metabolism by the Leucine-responsive Regulatory Protein Lrp., University of Michigan, Biological Chemistry, Committee Member
Present	Kelly Sovacool, Analysis of the Role of the Microbiota in C. difficile Infection, University of Michigan, Microbiology and Immunology, Committee Member

Committee and Administrative Services

Committee Services

International

2015-2017	Tenth International Meeting on the Molecular Biology and Pathogenesis of the Clostridia (ClostPath 10), Conference Chairman
2016	NIH Committee on Animal Models for Microbiome Research: Advancing Basic and Translational Science, Member
2017-2018	Anaerobe Society of the Americas, Executive Board, Secretary
2019-2020	Anaerobe Society of the Americas, Executive Board, Vice-President
2020-2024	Anaerobe Society of the Americas, Executive Board, President

National

2015-2018	Infectious Diseases Society of America, Member, Program Committee
2018-2021	Infectious Diseases Society of America, Member, Research Committee
2018-present	American Society for Microbiology, Member, Council on Microbial Sciences (COMS)

Institutional

2001-2002	MSU National Food Safety and Toxicology Center Strategic Planning Committee on Interdisciplinary Research, Member
2002-2004	Steering Committee for the MSU Center for Emerging Infectious Diseases, Member
2002-2007	MSU Faculty Grievance Board, Member
2002	MSU College of Human Medicine Dean's Task Force for Advancing Research, Member
2003-2004	Faculty search committee member for the Department of Microbiology and Molecular Genetics, Member

2003	Faculty search committee for the Department of Environmental Engineering, Member
2005-2007	MSU College of Human Medicine Committee on Research, Dean's Committee, Member
2006-2007	Faculty search committee member for the MSU Department of Internal Medicine /Infectious Diseases Division, Member
2008	University of Michigan Microbiology & Immunology, University President's Interdisciplinary Cluster Hire in Microbial Ecology, search committee, Member
2009-2012	University of Michigan Senate Assembly, Department of Internal Medicine, Alternate Representative
2009	North Campus Research Complex Research Scientific Programming committee, Member
2010-2011	Microbiology & Immunology Academic Awards & Promotions (AP&A) committee, Member
2010-2012	University of Michigan Medical School Biomedical Research Council, Member
2014-2019	University of Michigan Host-Microbiome Initiative, Co-Director
2021	Search Committee, Section Chief, Ann Arbor VA Medical Center Infectious Diseases, Member

Administrative Services

Volunteer

2004	Leader, Eastminster Child Development Center, East Lansing, MI, Fundraising sponsor for the Eastminster Child Development Center in East Lansing, Michigan. Initiated and funded a matching-donation program for this preschool serving community residents of diverse socioeconomic backgrounds. Led the playground improvement committee that was responsible for the planning and installation of a new \$35,000 play area.
2005-2007	Coach, Okemos Community, Okemos, MI, Okemos community youth T-ball/baseball league
2008-2011	Coach, Ann Arbor Rec & Ed, Ann Arbor, MI, Ann Arbor Rec & Ed Baseball team

Visiting Professorships and Extramural Invited Presentations

Visiting Professorships

02/2002	A Systems Biology View of <i>Clostridiodes difficile</i> Infection, University of Toledo, College of Medicine and Life Sciences, February 2002, Toledo, OH
12/2002	Gastrointestinal Microbiology: From Pathogens to Commensals, Medical College of Ohio, December 2002, Toledo, OH
09/2004	<i>Helicobacter hepaticus</i> and Murine Inflammatory Bowel Disease, University of Illinois, Chicago Medical School, September 2004, Chicago, IL
11/2004	<i>Helicobacter hepaticus</i> and Murine Inflammatory Bowel Disease, Duke University, November 2004, Durham, NC
04/2006	Microbial Ecology of Inflammatory Bowel Diseases, Cleveland Clinic Foundation Lerner Research Foundation, April 2006, Cleveland, OH
07/2006	Gastrointestinal Microbiology: You and Several Billion of Your Closest Friends, Oregon Health Sciences University, July 2006, Portland, OR
08/2006	Microbial Ecology of the Gastrointestinal Tract, University of Chicago School of Medicine, August 2006, Chicago, IL
10/2006	Gut Microbial Ecology: From Commensals to Colitis, University of Virginia, October 2006, Charlottesville, VA
01/2007	Microbial Ecology of the Gastrointestinal Tract, Washington University of School of Medicine, January 2007, St. Louis, IL
06/2007	Gastrointestinal Microbiology: Communities of Gut Microbes, University of North Carolina School of Medicine, June 2007, Chapel Hill, NC
01/2009	Ecology of the GI Microbiota: Dynamics and Disease, Baylor College of Medicine, January 2009, Houston, TX
08/2010	The Indigenous Intestinal Microbiota in Gut Health and Disease, Massachusetts Institute of Technology, August 2010, Cambridge, MA

- 09/2010 Microbial Ecology Meets Medicine: The Microbiology of the Gastrointestinal Tract, University of Wisconsin, September 2010, Madison, WI
- 03/2011 Microbial Ecology of the Gastrointestinal Tract: Friends and Pathogens, Northwestern Feinberg School of Medicine, March 2011, Chicago, IL
- 02/2012 Battle in the Belly: *C. difficile* and the Indigenous Gut Microbiota, Baylor College of Medicine, February 2012, Houston, TX
- 09/2013 The microbiome in infectious and non-infectious colitis, Washington University, September 2013, Seattle, WA
- 10/2013 The microbiome in *C. difficile* infection.", Wayne State University, October 2013, Detroit, MI
- 12/2013 The microbiome in infectious and non-infectious colitis, Vanderbilt University DDRCC, December 2013, Asheville, TN
- 02/2014 The microbiome in *C. difficile* infection, Oklahoma University Health Sciences Center, February 2014, Oklahoma City, OK
- 06/2014 *C. difficile* Infection: Updates from the bench and the bedside" & "A microbiome users guide" (2 presentations), Rush University School of Medicine, June 2014, Chicago, IL
- 07/2014 *C. difficile* infection: systems biology of a nosocomial threat, NIH ID Grand Rounds, July 2014, Bethesda, MD
- 02/2015 The past, present and future of infectious diseases, University of Alabama at Birmingham, February 2015, Birmingham, AL
- 03/2015 Pathogen, Microbiome and Host: the Tale of *Clostridium difficile*, The University Of North Carolina, Chapel Hill/Microbiology Department, March 2015, Chapel Hill, NC
- 03/2015 Pathogen, host and microbiome interactions in *Clostridium difficile* infection, Texas A&M University, March 2015, College Station, TX
- 07/2015 The Microbiome in the Pathogenesis of *Clostridium difficile* infection, M.D. Anderson Cancer Center, July 2015, Houston, TX
- 07/2015 Pathogen, host and microbiome interactions in *Clostridium difficile* infection, The Mayo Clinic, July 2015, Rochester, MN
- 11/2015 Fecal Transplantation in the Treatment of GI Diseases: The Microbiome in Infectious and Non-infectious Colitis, National Taiwan University, November 2015, Taipei, Taiwan
- 01/2016 The Gut Microbiome in Infectious Diseases: Lessons from *Clostridium difficile*, University of Connecticut, January 2016, Hartford, CT
- 02/2016 *Clostridium difficile* Infection: The Complex Interplay Between Host, Pathogen and Microbiome, Uniformed Services University of the Health Sciences, February 2016, Bethesda, MD
- 02/2016 *Clostridium difficile* Infection: Host, Pathogen and Microbiome, University of Pennsylvania Medical School, February 2016, Philadelphia, PA
- 03/2016 *Clostridium difficile* Infection: The Complex Interplay Between Host, Pathogen and Microbiome, Stanford University School of Medicine, March 2016, Stanford, CA
- 03/2016 Systems Biology of *Clostridium difficile* Infection, Montana State University, March 2016, Bozeman, MT
- 03/2016 The Microbiome in Infectious Diseases: Lessons from *Clostridium difficile* Infection, Department of Medicine, University of Pittsburgh, March 2016, Pittsburgh, PA
- 04/2016 Keynote Speaker: Microbiota Transplantation: The Role of the Microbiome in the Development of *Clostridium difficile* Infection, The 26th European Congress of Clinical Microbiology and Infectious Diseases, April 2016, Amsterdam, The Netherlands
- 05/2016 You Are Never Alone: The Microbiome in Health and Disease, You Are Never Alone: The Microbiome in Health and Disease, May 2016, Providence, RI
- 06/2016 Keynote Speaker: Establishing Microbiome Research: The University of Michigan Experience, University of Pittsburgh, June 2016, Pittsburgh, PA
- 04/2017 The host, pathogen and microbiome in *Clostridium difficile* infection, U of Illinois, April 2017, Champaign/Urbana, IL
- 06/2017 The Human Microbiome, Michigan State University College of Osteopathic Medicine - Student Osteopathic Medical Association, June 2017, East Lansing, MI

11/2017	The Good and the Bad of the Gut Microbiota: Host Interactions with <i>E. coli</i> and <i>C. difficile</i> , Duke University, November 2017, Durham, NC
09/2018	Host-Microbe Interactions in Human Health and Disease, University of Chicago School of Medicine, September 2018, Chicago, IL
01/2019	Merle Sande Memorial Lectureship. "The Microbiome in Clinical Medicine: Hope or Hype?", University of Utah School of Medicine, January 2019, Salt Lake City, UT
01/2019	Systems Biology of <i>Clostridium difficile</i> Infection, Northwestern University School of Medicine, January 2019, Chicago, IL
02/2019	Systems Biology of <i>Clostridium difficile</i> Infection, Alimentary Pharmabiotic Centre, University College Cork, February 2019, Cork, Ireland
02/2019	Man, Microbiome and Pathogen: Systems Biology of <i>Clostridium difficile</i> Infection, University of British Columbia, February 2019, Vancouver, BC
02/2020	Host, Pathogen and Microbiome: Systems Biology of <i>Clostridioides difficile</i> Infection., University of Buffalo School of Medicine, February 2020, Buffalo, NY
02/2020	<i>C. difficile</i> Infection: Lessons from Patients and Animal Models, University of Toledo School of Medicine, February 2020, Toledo, OH
02/2020	<i>Clostridioides difficile</i> Infection: Lessons from Patients and Animal Models, University of South Florida, February 2020, Tampa, FL
04/2020	The Gut Microbiome in Colitis: <i>C. difficile</i> Infection and Inflammatory Bowel Disease, University of Sheffield, April 2020, Sheffield, England (via Zoom)
08/2020	Host, Pathogen and Microbiome: The Complex Biology of <i>Clostridioides difficile</i> Infection, Vanderbilt University School of Medicine, August 2020, Nashville, TN (via Zoom)
12/2020	The indigenous microbiota of the gut: Relationship to infectious and non-infectious colitis, UCSD School of Medicine, San Diego Digestive Diseases Research Center Seminar, December 2020, San Diego, CA (via Zoom)
02/2021	<i>Clostridioides difficile</i> Infection: The Confluence of Pathogen, Host and Microbiota in the Gut, University of Toronto, February 2021, Toronto, ON (via Zoom)
02/2022	The Systems Biology of <i>Clostridioides difficile</i> Infection, University of Texas, San Antonio, February 2022, San Antonio, TX
02/2022-present	Timothy A. Johnson Seminar: Translational Investigations of <i>Clostridioides difficile</i> Infection, Virginia Tech Carillion School of Medicine, February 2022, Roanoke, VA

Extramural Invited Presentations

1. The Physiology of the Gut as it Relates to Food Pathogens, Michigan Department of Agriculture 2003 Spring Food Protection Seminar, May 2003, Lansing, MI
2. Emerging Issues in Gastrointestinal Microbiology, MSU College of Human Medicine/Van Andel Research Institute Mini Medical School Lecture, November 2003, Grand Rapids, MI
3. Enterohemorrhagic *E. coli* and Hemolytic Uremic Syndrome, National Institutes of Health, Developmental and Metabolic Neurology Branch, National Institute of Neurologic Diseases and Stroke, March 2004, Bethesda, MD
4. Panel discussant: Microbial ecology session for the Microbial-Host Interactions in IBD Workshop, Crohn's and Colitis Foundation of America, March 2006, St. Petersburg, FL
5. Gastrointestinal Microbiology, School of Veterinary Medicine, Cornell University, June 2006, Ithaca, NY
6. Microbial ecology of the murine gastrointestinal tract, NIH Workshop-Crohn's Disease and the Intestinal Microbiota, August 2006, Bethesda, MD
7. Ecologic analysis of the gut microbiota: structure, function and dynamics, University of Chicago NIH Digestive Diseases Research Core Center Symposium Retreat, October 2006, Chicago, IL
8. Microbial ecology of the gastrointestinal tract, Department of Medicine, University of Michigan, December 2006, Ann Arbor, MI
9. "Microbial Ecology of the Gut: The Human Microbiome Project" Future of Health Technology Institute "Future of GI Summit.", Massachusetts Institute of Technology, January 2008, Cambridge, MA
10. Gut Microbial Ecology, Division of Gastroenterology, New England Medical Center, February 2008, Boston, MA

11. Gut health and Gut Microbial Ecology, 2nd Annual Nutrition and Wellness Research Center Symposium. Iowa State University, May 2008, Ames, IA
12. Complex Microbial Communities and Human Health, Plenary Speech at the fall meeting of the Michigan Branch of the American Society for Microbiology. Eastern Michigan University, October 2008, Ypsilanti, MI
13. *C. difficile* and gut microbial ecology, NIH workshop "Diagnosis and Treatment of Clostridium difficile infection", November 2008, Bethesda, MD
14. The Mammalian Gut Microbiota: Dynamics and Disease, 109th Annual Meeting of the American Society for Microbiology, May 2009, Philadelphia, PA
15. Ecologic Dynamics of the Gut Microbiota, 49th Annual Interscience Conference on Antimicrobial Agents and Chemotherapy., September 2009, San Francisco, CA
16. Tales from the Crypt: Microbial Ecology of the Gut, Biology Research Seminar, Calvin College, December 2009, Grand Rapids, CA
17. Gastrointestinal Microbiology: You and a Billion of Your Closest Friends, Biology Research Seminar, Eastern Michigan University, March 2010, Ypsilanti, MI
18. Beyond Koch: Complex Microbial Communities in Human Health and Disease, Mickey King Memorial Lecture. Annual Meeting of the South Central Association for Clinical Microbiology, March 2010, Louisville, KY
19. From the Colon to the Deep Blue Sea: Convergence of Science at the Human Microbiome Project., 110th Annual Meeting of the American Society for Microbiology, May 2010, San Diego, CA
20. *Clostridium difficile* and the Indigenous Gut Microbiota, 110th Annual Meeting of the American Society for Microbiology, May 2010, San Diego, CA
21. The Gastrointestinal Microbiota and *Clostridium difficile*, Anaerobe 2010., July 2010, Philadelphia, PA
22. The Role of the Gut Microbiota in Ulcerative Colitis, NIH Human Microbiome Project Network Meeting., September 2010, St. Louis, MO
23. The Human Microbiome Project: Next-Generation Sequencing & Analysis of the Indigenous Microbiota, NGX: Evolution of Next-Generation Sequencing. Second-Generation Applications to Third-Generation Progress, September 2010, Providence, RI
24. Microbial Ecology of Gastrointestinal Disease, ASM Beneficial Microbes Conference, October 2010, Miami, FL
25. Structure and Function of the Indigenous Gut Microbiota, NIEHS Workshop: Health Consequences from Xenobiotic/Gut Microbiome/Host Interactions., November 2010, Research Triangle Park, NC
26. Understanding the Structure and Function of the Gut Microbiota, American Association for Cancer Research Prevention Meeting, November 2010, Philadelphia, PA
27. Clinical aspects of Human Microbial Ecology, Keystone Symposium: Microbial communities as drivers of ecosystem complexity, March 2011, Keystone, CO
28. Why is the Microbiome Important in Environmental Health, National Academies of Science Microbiome Workshop, April 2011, Washington, DC
29. Microbial Ecology of the Gastrointestinal Tract: Friends and Pathogens, University of Chicago, April 2011, Chicago, IL
30. The Microbiota in the Development of Colitis Due to *Clostridium difficile* Infection, The 25th Herborn University Symposium, July 2011, Herborn, Germany
31. Antagonism Between *Clostridium difficile* and the Indigenous Gut Microbiota, Wellcome Trust Symposium: Applying Advanced Molecular Techniques to Healthcare Infections., October 2011, Hinxton, Cambridge, UK
32. Defining a Healthy Gut Microbiome., ILSI Gut Health Conference and Workshop, December 2011, Washington, DC
33. Systems Biology of *C. difficile*: Clinical Medicine Meets the Microbiome, Center for Vaccine Research, May 2012, Pittsburgh, PA
34. Colonization resistance: interactions between *Clostridium difficile* and the indigenous gut microbiota., Anaerobe, June 2012, San Francisco, CA
35. Murine models for the study of *Clostridium difficile* infection, NIH Animal Model Workshop, August 2012, Bethesda, MD
36. The indigenous gut microbiota and intestinal infectious diseases, Aptalis Pharma Meeting., October 2012, Atlanta, GA

37. The microbiota and susceptibility to *Clostridium difficile* colitis, IDSA Annual Meeting, October 2012, San Diego, CA
38. Microbes as partners in host defense: lessons from *Clostridium difficile*, CSIBD Workshop, November 2012, Boston, MA
39. The gut microbiome in *C. difficile* infection., Loyola University, January 2013, Chicago, IL
40. *Clostridium difficile* and the indigenous gut microbiota: lessons from animals (and humans)., NIH Workshop (Fecal Microbiota for Transplantation), May 2013, Bethesda, MD
41. The ecology of *Clostridium difficile* infections, ASM General Meeting, May 2013, Denver, CO
42. The microbiome in infectious and non-infectious colitis, NIH Microbiome Showcase, July 2013, Bethesda, MD
43. The host, metabolome, pathogen and microbiome in *C. difficile* infection, ICAAC, September 2013, Denver, CO
44. The implications of microbiome disruptions in infectious diseases, ICAAC, September 2013, Denver, CO
45. Systems biology of *C. difficile* infection, Clos Path, October 2013, Queensland, Australia
46. Relapsing *C. difficile* infection: the role of the microbiome in pathogenesis and as a therapeutic target, ID Week, October 2013, San Diego, CA
47. Meet the Professor: a user's guide to microbiome and analysis, ID Week, October 2013, San Diego, CA
48. The microbiome in undergraduate medical education, Association of Medical School Microbiology and Immunology Chairs educational conference, May 2014, Myrtle Beach, SC
49. Animal models of *C. difficile* infection, Anaerobe Society of the Americas, June 2014, Chicago, IL
50. The host, pathogen and microbiome in *C. difficile* infection, Microbial Toxins & Pathogenesis Gordon Research Conference, July 2014, Waterville Valley, NH
51. *C. difficile* infection: updates from the bench and the bedside, Infectious Diseases Society for Obstetrics and Gynecology, August 2014, Stowe, VT
52. "Animal models of FMT" & "Microbiome users guide" (2 talks), Fecal Microbiota Transplantation. 2014 James W. Freston Single Topic Conference, August 2014, Chicago, IL
53. Intestinal metabolome and resistance to *Clostridium difficile* infection, IDWeek, October 2014, Philadelphia, PA
54. Polymicrobial interactions in *Clostridium difficile* infection: a pathogen and its frenemies, ASM Conference on Polymicrobial Infections, November 2014, Washington, DC
55. Pathogen-microbiome interactions in *Clostridium difficile* infection: a pathogen and its frenemies, Gulf Coast Conference, December 2014, Houston, TX
56. *Clostridium difficile* infection: tripartite interactions between a pathogen, host and microbiota., University of Tennessee, March 2015, Knoxville, TN
57. *Clostridium difficile* Infection: The Tangled Web of Epithelium, Microbiota and Pathogen, Fifth International *C. difficile* Symposium, May 2015, Bled, Slovenia
58. Pathogen, host and microbiome interactions in *Clostridium difficile* infection, MBL Course: Frontiers in Host-Microbe Interactions, August 2015, Marine Biological Laboratory, Woods Hole, MA
59. Novel Models for HostMicrobe Interactions, NIH/NIAID Workshop: The Microbiome in Infectious Diseases, August 2015, Bethesda, MD
60. The Host, Pathogen and Microbiota in *Clostridium difficile* infection, Merck, September 2015, Kenilworth, NJ
61. The Next Phase of the Human Microbiome Project: On to Function..., Virginia Branch, American Society for Microbiology, November 2015, Richmond, VA
62. Organoids and Other ex vivo Systems for Examining Systemic Changes in Microbiome Structure: Implications for Obesity., NIDDK Microbiome in Obesity Workshop, December 2015, Bethesda, MD
63. The role of the intestinal microbiota for development of *Clostridium difficile* infections, Dutch Society of Microbiology, Leiden University, March 2016, Leiden, Netherlands
64. Organoid Model Systems for Examining Host-Microbe Interactions, Federation of American Societies for Experimental Biology, April 2016, San Diego, CA
65. *Clostridium difficile* II, Anaerobe Society of the Americas (ASA), July 2016, Nashville, TN

66. Microbial ecology of *Clostridium difficile* infection, ASM Alaska Branch keynote lecture and Institute of Arctic Biology Life Sciences Seminar, October 2016, Fairbanks, Alaska
67. The education of a clinician: my introduction to microbial ecology "before the microbiome", ASM Alaska Branch lecture, October 2016, Fairbanks, Alaska
68. Intestinal Immunity and Physiology, ASM/ASV Conference on Interplay of Viral and Bacterial Pathogens, May 2017, Bethesda, MD
69. *C. difficile* and Human Intestinal Enteroids, American Society for Microbiology, June 2017, New Orleans
70. Microbiome in Human Disease, U.S. Food and Drug Administration, 2018 Center for Biologics Evaluation and Research (CBER) Science Symposium, June 2018, Soler Spring, MD
71. The Microbiome in Human Health and Disease: Clinician-Scientist's Perspective, U.S. Food and Drug Administration, National Institute of Allergy and Infectious Diseases, September 2018, Rockville, MD
72. Innovative Data Driven Strategies for Infectious Diseases Opportunities, Challenges, and the Path Forward, National Institute of Allergy and Infectious Diseases, September 2018, Bethesda, MD
73. From Mouse to Man: Systems Biology of *Clostridium difficile* Infection, University of Utah School of Medicine, January 2019, Salt Lake City, UT
74. Connecting 'omics with Clinical Data to Understand the Microbiome's Role in Human Health and Disease, Digestive Disease Week, May 2019, San Diego, CA
75. A Whole New Ballgame: Stem Cell-Derived Epithelia to Study Host-Microbe Interactions, Digestive Disease Week, May 2019, San Diego, CA

Other

1. Moderator: Tissue Engineering in Infectious Diseases Research, 2016 IDWeek, October 2016, New Orleans, LA
2. Moderator: Host/Microbe Metabolic Factors Shape Infectious Disease Pathogenesis, 2016 IDWeek, October 2016, New Orleans, LA
3. Moderator: Opening the Hood and Looking at the Mechanisms, 2016 IDWeek, October 2016, New Orleans, LA
4. Moderator: The Influence of the Microbiome on Infectious Disease Pathogenesis, 2016 IDWeek, October 2016, New Orleans, LA
5. Microbiome Science - Panel Discussion, IDSA, ID Week, October 2019, Washington, DC

Seminars

1. Infectious Disease, Toxicology and Carcinogenesis Meet: The role of *Helicobacter hepaticus* in Murine Inflammatory Bowel Disease, Hepatitis and Hepatocellular Cancer, MSU National Food Safety and Toxicology Center Seminar, April 2002, East Lansing, MI
2. Foodborne Illness: Lessons from the Bench to the Bedside and Beyond, MSU Medical Grand Rounds, October 2002, East Lansing, MI
3. Enteromics: Antibiotic-associated diarrhea monitored by 16S rDNA clone libraries, MSU Bad Bug Club, November 2002, East Lansing, MI
4. Update on Foodborne Illness, MSU Microbiology Club, December 2002, East Lansing, MI
5. Microbial Ecology of the Human Gut, MSU Medical Grand Rounds. Sparrow Hospital, February 2003, Lansing, MI
6. Enteromics and *Campylobacter* molecular epidemiology, MSU Bad Bug Club, April 2003, East Lansing, MI
7. Update on *Campylobacter* epidemiology and pathogenesis, MSU National Food Safety and Toxicology Center Seminar series, October 2003, East Lansing, MI
8. Microbial ecology in infectious diseases, MSU Medical Grand Rounds, December 2003, East Lansing, MI
9. Murine inflammatory bowel disease triggered by *Helicobacter hepaticus*, MSU Department of Food Science and Human Nutrition, January 2004, East Lansing, MI
10. Emerging Infectious Diseases and Food Safety, 2004 Great Lakes Environmental Journalism Training Institute, June 2004, East Lansing, MI
11. Fire in the Belly: The Microbiology of Gastrointestinal Infectious Diseases, MSU National Food Safety and Toxicology Center Seminar series, October 2004, East Lansing, MI

12. Gastrointestinal Microbiology: From Commensals to Pathogens, 11th Annual Midwest Microbial Pathogenesis Conference, October 2004, Lansing, MI
13. Gastrointestinal microbiology, MSU Medical Grand Rounds, January 2005, East Lansing, MI
14. Murine models of hemolytic-uremic syndrome, NIH Food & Waterborne Diseases Integrated Research Network Animal Model Workshop, April 2005, East Lansing, MI
15. Antibiotic-associated diarrhea, MSU Medical Grand Rounds, February 2006, East Lansing, MI
16. *Helicobacter hepaticus* and modulation of host immunity and microbial ecology, National Food Safety & Toxicology Center seminar series, February 2006, East Lansing, MI
17. Gastrointestinal Microbiology: From Commensals to Pathogens, University of Michigan Infectious Diseases Division, February 2006, Ann Arbor, MI
18. Genomics in Medicine, Sparrow Health System Medical Staff Conference-Community Impact Infectious Diseases, September 2006, Lansing, MI
19. Gastrointestinal Microbiology, Infectious Diseases Grand Rounds. University of Michigan, December 2007, Ann Arbor, MI
20. Microbial Ecology of the Gastrointestinal Tract, MAC-EPID Symposium: Understanding the Human Microbiome II. University of Michigan, March 2008, Ann Arbor, MI
21. Microbial Ecology of Antibiotic-Associated Diarrhea, Infectious Diseases Grand Rounds. University of Michigan, October 2008, Ann Arbor, MI
22. The Ecology of the Gastrointestinal Microbiota: From Health to Disease, Internal Medicine Grand Rounds. University of Michigan, July 2009, Ann Arbor, MI
23. In the Footsteps of Fekety and Freter: Antibiotic Disruption of the Gut Microbial Community, Internal Medicine Grand Rounds. Conn Award Lecture. University of Michigan, July 2010, Ann Arbor, MI
24. Translating Translational Research: *Clostridium difficile* Research at U of M, Microbiology & Immunology Department Seminar, March 2012, Ann Arbor, MI
25. Moderator: We are not alone: emerging issues of the human mycobiome, American Society of Microbiology, June 2016, Boston, MA
26. Microbial and metabolic aspects of *C. difficile* infection in the gut, University of Michigan, Department of Nephrology Division Basic Science Seminar, September 2016, Ann Arbor, Michigan
27. Microbial & metabolic aspects of *C. difficile* infection in the gut, University of Michigan, Nephrology Division, September 2016, Ann Arbor, MI
28. In-Vitro Systems for Characterizing the Properties/Dynamic Operations of Microbial Consortia Organoids, Animal Models for Microbiome Research: Advancing Basic and Translational Science, December 2016, Washington, DC
29. Comparing and contrasting *C. difficile* in humans, animals and engineered tissue systems, 2017 NAMSED All-Site Meeting, May 2017, Cincinnati, OH
30. The Microbiome in Clinical Medicine, CDC Workshop: Microbiome Indices for Antibiotic Resistance Outcomes: Guiding Science for Drug Development, September 2017, Atlanta, GA
31. Dr. Ananda Prasad Lecture in Physiology: Biome and the Gut-Effect on the Determination of Health, American College of Physicians, April 2018, New Orleans, LA
32. The Gut Microbiome in Colitis: *C. difficile* Infection and Inflammatory Bowel Disease, University of Sheffield, April 2021, Sheffield, UK
33. Mammals and Microbial Communities: What We've Learned from Animal Models, American Association for Laboratory Animal Science, October 2021, Kansas City, MO
34. The Systems Biology of *Clostridiodes difficile* Infection, University of Iowa Department of Internal Medicine, March 2022, Iowa City, IA

Bibliography

Peer-Reviewed Journals and Publications

1. Pakula AA, Young VB, Sauer RT: Bacteriophage lambda cro mutations: effects on activity and intracellular degradation. Proc. Natl. Acad. Sci. U.S.A. 83(23): 8829-8833, 1986. PM2947238
2. Young VB, Miller VL, Falkow S, Schoolnik GK: Sequence, localization and function of the invasin protein of *Yersinia enterocolitica*. Mol. Microbiol. 4(7): 1119-1128, 1990. PM2233250

3. **Young VB**, Falkow S, Schoolnik GK: The invasin protein of *Yersinia enterocolitica*: internalization of invasin-bearing bacteria by eukaryotic cells is associated with reorganization of the cytoskeleton. *J. Cell Biol.* 116(1): 197-207, 1992. PM1730744
4. **Young VB**, Knox KA, Schauer DB: Cytolethal distending toxin sequence and activity in the enterohepatic pathogen *Helicobacter hepaticus*. *Infect. Immun.* 68(1): 184-191, 2000. PM10603386
5. **Young VB**, Schauer DB: Cytolethal distending toxin: a bacterial toxin which disrupts the eukaryotic cell cycle. *Chem. Res. Toxicol.* 13(10): 936-939, 2000. PM11080036
6. Chien CC, Taylor NS, Ge Z, Schauer DB, **Young VB**, Fox JG: Identification of *cdtB* homologues and cytolethal distending toxin activity in enterohepatic *Helicobacter* spp. *J. Med. Microbiol.* 49(6): 525-534, 2000. PM10847206
7. **Young VB**, Dangler CA, Fox JG, Schauer DB: Chronic atrophic gastritis in SCID mice experimentally infected with *Campylobacter fetus*. *Infect. Immun.* 68(4): 2110-2118, 2000. PM10722608
8. **Young VB**, Chien CC, Knox KA, Taylor NS, Schauer DB, Fox JG: Cytolethal distending toxin in avian and human isolates of *Helicobacter pullorum*. *J. Infect. Dis.* 182(2): 620-623, 2000. PM10915100
9. Wilson DL, Bell JA, **Young VB**, Wilder SR, Mansfield LS, Linz JE: Variation of the natural transformation frequency of *Campylobacter jejuni* in liquid shake culture. *Microbiology (Reading, Engl.)* 149(12): 3603-3615, 2003. PM14663092
10. **Young VB**, Schmidt TM: Antibiotic-associated diarrhea accompanied by large-scale alterations in the composition of the fecal microbiota. *J. Clin. Microbiol.* 42(3): 1203-1206, 2004. PM15004076
11. **Young VB**, Knox KA, Pratt JS, Cortez JS, Mansfield LS, Rogers AB, Fox JG, Schauer DB: In vitro and in vivo characterization of *Helicobacter hepaticus* cytolethal distending toxin mutants. *Infect. Immun.* 72(5): 2521-2527, 2004. PM15102759
12. Fitch BR, Sachen KL, Wilder SR, Burg MA, Lacher DW, Khalife WT, Whittam TS, **Young VB**: Genetic diversity of *Campylobacter* sp. isolates from retail chicken products and humans with gastroenteritis in Central Michigan. *J. Clin. Microbiol.* 43(8): 4221-4224, 2005. PM16081984
13. Hyma KE, Lacher DW, Nelson AM, Bumbaugh AC, Janda JM, Strockbine NA, **Young VB**, Whittam TS: Evolutionary genetics of a new pathogenic *Escherichia* species: *Escherichia albertii* and related *Shigella boydii* strains. *J. Bacteriol.* 187(2): 619-628, 2005. PM15629933
14. Kuehl CJ, Wood HD, Marsh TL, Schmidt TM, **Young VB**: Colonization of the cecal mucosa by *Helicobacter hepaticus* impacts the diversity of the indigenous microbiota. *Infect. Immun.* 73(10): 6952-6961, 2005. PM16177375
15. Pratt JS, Sachen KL, Wood HD, Eaton KA, **Young VB**: Modulation of host immune responses by the cytolethal distending toxin of *Helicobacter hepaticus*. *Infect. Immun.* 74(8): 4496-4504, 2006. PM16861635
16. Denno DM, Klein EJ, **Young VB**, Fox JG, Wang D, Tarr PI: Explaining unexplained diarrhea and associating risks and infections. *Anim Health Res Rev* 8(1): 69-80, 2007. PM17692144
17. Mansfield LS, Bell JA, Wilson DL, Murphy AJ, Elsheikha HM, Rathinam VA, Fierro BR, Linz JE, **Young VB**: C57BL/6 and congenic interleukin-10-deficient mice can serve as models of *Campylobacter jejuni* colonization and enteritis. *Infect. Immun.* 75(3): 1099-1115, 2007. PM17130251
18. Tonelli AR, Khalife WT, Cao M, **Young VB**: Spherules, hyphae, and air-crescent sign. *Am. J. Med. Sci.* 335(6): 504-506, 2008. PM18552586/PMC-
19. Walk Seth T, **Young Vincent B**: Emerging insights into antibiotic-associated diarrhea and *Clostridium difficile* infection through the lens of microbial ecology. *Interdisciplinary perspectives on infectious diseases 2008*: 125081, 2008. PM19277109/PMC2649424
20. Chang JY, Antonopoulos DA, Kalra A, Tonelli A, Khalife WT, Schmidt TM, **Young VB**: Decreased Diversity of the Fecal Microbiome in Recurrent *Clostridium difficile*-Associated Diarrhea. *J. Infect. Dis.* 197(3): 435-438, 2008. PM18199029/PMC-
21. **Young VB**, Britton RA, Schmidt TM: The human microbiome and infectious diseases: beyond Koch. *Interdisciplinary perspectives on infectious diseases 2008*: 296873, 2008. PM19343181/PMC2662322
22. Eaton KA, Friedman DI, Francis GJ, Tyler JS, **Young VB**, Haeger J, Abu-Ali G, Whittam TS: Pathogenesis of renal disease due to enterohemorrhagic *Escherichia coli* in germ-free mice. *Infect. Immun.* 76(7): 3054-3063, 2008. PM18443087/PMC2446693
23. **Young VB**, Schmidt TM: Overview of the gastrointestinal microbiota. *Adv. Exp. Med. Biol.* 635: 29-40, 2008. PM18841701/PMC-

24. Tran MP, Caldwell-McMillan M, Khalife W, **Young VB**: *Streptococcus intermedius* causing infective endocarditis and abscesses: a report of three cases and review of the literature. BMC Infect. Dis. 8: 154, 2008. PM18992173/PMC2600825
25. Antonopoulos DA, Huse SM, Morrison HG, Schmidt TM, Sogin ML, **Young VB**: Reproducible community dynamics of the gastrointestinal microbiota following antibiotic perturbation. Infect. Immun. 77(6): 2367-2375, 2009. PM19307217/PMC2687343
26. Harris L, Senagore P, **Young VB**, McCabe LR: Inflammatory bowel disease causes reversible suppression of osteoblast and chondrocyte function in mice. Am. J. Physiol. Gastrointest. Liver Physiol. 296(5): G1020-G1029, 2009. PM19299577/PMC-
27. Garner CD, Antonopoulos DA, Wagner B, Duhamel GE, Keresztes I, Ross DA, **Young VB**, Altier C: Perturbation of the small intestine microbial ecology by streptomycin alters pathology in a *Salmonella enterica* serovar typhimurium murine model of infection. Infect. Immun. 77(7): 2691-2702, 2009. PM19433544/PMC2708583
28. Hao Y, Senn T, Opp JS, **Young VB**, Thiele T, Srinivas G, Huang SK, Aronoff DM: Lethal toxin is a critical determinant of rapid mortality in rodent models of *Clostridium sordellii* endometritis. Anaerobe 16(2): 155-160, 2010. PM19527792/PMC2856776
29. Chick DA, Friedman HP, **Young VB**, Solomon D: Relationship between COMLEX and USMLE scores among osteopathic medical students who take both examinations. Teach Learn Med 22(1): 3-7, 2010. PM20391276/PMC-
30. Robinson CJ, Bohannon BJ, **Young VB**: From structure to function: the ecology of host-associated microbial communities. Microbiol. Mol. Biol. Rev. 74(3): 453-476, 2010. PM20805407
31. Walk ST, Blum AM, Ewing SA, Weinstock JV, **Young VB**: Alteration of the murine gut microbiota during infection with the parasitic helminth *Heligmosomoides polygyrus*. Inflamm. Bowel Dis. 16(11): 1841-1849, 2010. PM20848461
32. Wang Y, Antonopoulos DA, Zhu X, Harrell L, Hanan I, Alverdy JC, Meyer F, Musch MW, **Young VB**, Chang EB: Laser capture microdissection and metagenomic analysis of intact mucosa-associated microbial communities of human colon. Appl. Microbiol. Biotechnol. 88(6): 1333-1342, 2010. PM20931185
33. Robinson CJ, **Young VB**: Antibiotic administration alters the community structure of the gastrointestinal microbiota. Gut microbes 1(4): 279-284, 2010. PM20953272
34. Eaton KA, Opp JS, Gray BM, Bergin IL, **Young VB**: Ulcerative typhlocolitis associated With *Helicobacter mastomyrinus* in telomerase-deficient mice. Vet. Pathol. 48(3): 713-725, 2011. PM20926734
35. **Young VB**, Kahn SA, Schmidt TM, Chang EB: Studying the Enteric Microbiome in Inflammatory Bowel Diseases: Getting through the Growing Pains and Moving Forward. Front Microbiol 2(JULY): 144, 2011. PM21772835
36. Reeves AE, Theriot CM, Bergin IL, Huffnagle GB, Schloss PD, **Young VB**: The interplay between microbiome dynamics and pathogen dynamics in a murine model of *Clostridium difficile* Infection. Gut Microbes 2(3): 145-158, 2011. PM21804357
37. Walk ST, Jain R, Trivedi I, Grossman S, Newton DW, Thelen T, Hao Y, Songer JG, Carter GP, Lyras D, **Young VB**, Aronoff DM: Non-toxigenic *Clostridium sordellii*: clinical and microbiological features of a case of cholangitis-associated bacteremia. Anaerobe 17(5): 252-256, 2011. PM21726656
38. Zhao J, Li J, Schloss PD, Kalikin LM, Raymond TA, Petrosino JF, **Young VB**, LiPuma JJ: Effect of sample storage conditions on culture-independent bacterial community measures in cystic fibrosis sputum specimens. J. Clin. Microbiol. 49(10): 3717-3718, 2011. PM21865433
39. Theriot CM, Koumpouras CC, Carlson PE, Bergin II, Aronoff DM, **Young VB**: Cefoperazone-treated mice as an experimental platform to assess differential virulence of *Clostridium difficile* strains. Gut Microbes 2(6): 326-334, 2011. PM22198617
40. Nagalingam NA, Kao JY, **Young VB**: Microbial ecology of the murine gut associated with the development of dextran sodium sulfate-induced colitis. Inflamm. Bowel Dis. 17(4): 917-926, 2011. PM21391286
41. Dave M, Johnson LA, Walk ST, **Young VB**, Stidham RW, Chaudhary MN, Funnell J, Higgins PD: A randomised trial of sheathed versus standard forceps for obtaining uncontaminated biopsy specimens of microbiota from the terminal ileum Gut 60(8): 1043-1049, 2011. PM21317176
42. Erb-Downward JR, Thompson DL, Han MK, Freeman CM, McCloskey L, Schmidt LA, **Young VB**, Toews GB, Curtis JL, Sundaram B, Martinez FJ, Huffnagle GB: Analysis of the lung microbiome in the "healthy" smoker and in COPD PLoS ONE 6(2): e16384. doi: 10.1371/journal.pone.0016384, 2011. PM21364979

43. Zhao J, Carmody LA, Kalikin LM, Li J, Petrosino JF, Schloss PD, **Young VB**, LiPuma JJ: Impact of enhanced *Staphylococcus* DNA extraction on microbial community measures in cystic fibrosis sputum. PLoS ONE 7(3): e33127, 2012. PM22412992
44. Zhao J, Schloss PD, Kalikin LM, Carmody LA, Foster BK, Petrosino JF, Cavalcoli JD, VanDevanter DR, Murray S, Li JZ, **Young VB**, LiPuma JJ: Decade-long bacterial community dynamics in cystic fibrosis airways. Proc. Natl. Acad. Sci. U.S.A. 109(15): 5809-5814, 2012. PM22451929
45. Schloss PD, Schubert AM, Zackular JP, Iverson KD, **Young VB**, Petrosino JF: Stabilization of the murine gut microbiome following weaning. Gut Microbes 3(4): 383-93, 2012. PM22688727
46. Reeves AE, Koenigsnecht MJ, Bergin IL, **Young VB**: Suppression of *Clostridium difficile* in the gastrointestinal tracts of germfree mice inoculated with a murine isolate from the family *Lachnospiraceae*. Infect. Immun. 80(11): 3786-3794, 2012. PM22890996
47. Nelson AM, Walk ST, Taube S, Taniuchi M, Houghton ER, Wobus CE, **Young VB**: Disruption of the Human Gut Microbiota following Norovirus Infection. PLoS ONE 7(10): e48224, 2012. PM23118957
48. Walk ST, Micic D, Jain R, Lo ES, Trivedi I, Liu EW, Almossalha LM, Ewing SA, Ring C, Galecki AT, Rogers MA, Washer L, Newton DW, Malani PN, **Young VB**, Aronoff DM: *Clostridium difficile* ribotype does not predict severe infection. Clin. Infect. Dis. 55(12): 1661-1668, 2012. PM22972866
49. Mason KL, Erb Downward JR, Falkowski NR, **Young VB**, Kao JY, Huffnagle GB: Interplay between the gastric bacterial microbiota and *Candida albicans* during postantibiotic recolonization and gastritis. Infect. Immun. 80(1): 150-158, 2012. PM21986629
50. **Young VB**: The intestinal microbiota in health and disease. Curr. Opin. Gastroenterol. 28(1): 63-69, 2012. PM22080827
51. Gilliland 3rd MG, Erb-Downward JR, Bassis CM, Shen MC, Toews GB, **Young VB**, Huffnagle GB: Ecological succession of bacterial communities during conventionalization of germ-free mice. Appl. Environ. Microbiol. 78(7): 2359-2366, 2012. PM22286988
52. Han MK, Huang YJ, Lipuma JJ, Boushey HA, Boucher RC, Cookson WO, Curtis JL, Erb-Downward J, Lynch SV, Sethi S, Toews GB, **Young VB**, Wolfgang MC, Huffnagle GB, Martinez FJ: Significance of the microbiome in obstructive lung disease. Thorax 67(5): 456-463, 2012. PM22318161
53. Harrell L, Wang Y, Antonopoulos D, **Young V**, Lichtenstein L, Huang Y, Hanauer S, Chang E: Standard colonic lavage alters the natural state of mucosal-associated microbiota in the human colon. PLoS ONE 7(2): e32545, 2012. PM22389708
54. Britton RA, **Young VB**: Interaction between the intestinal microbiota and host in *Clostridium difficile* colonization resistance. Trends Microbiol. 20(7): 313-319, 2012. PM22595318
55. Beck JM, **Young VB**, Huffnagle GB: The microbiome of the lung. Transl Res 160(4): 258-266, 2012. PM22683412
56. Mason KL, Erb Downward JR, Mason KD, Falkowski NR, Eaton KA, Kao JY, **Young VB**, Huffnagle GB: *Candida albicans* and bacterial microbiota interactions in the cecum during recolonization following broad-spectrum antibiotic therapy. Infect. Immun. 80(10): 3371-3380, 2012. PM22778094
57. Bäckhed F, Fraser CM, Ringel Y, Sanders ME, Sartor RB, Sherman PM, Versalovic J, **Young V**, Finlay BB: Defining a healthy human gut microbiome: Current concepts, future directions, and clinical applications Cell Host Microbe 12(5): 611-622, 2012. PM23159051
58. Walk ST, Micic D, Galecki AT, Rogers MA, Washer L, Newton DW, Malani PN, **Young VB**, Aronoff DM: Reply to McDonald. Clin. Infect. Dis. 56(6): 907-908, 2013. PM23196958
59. Rao K, Walk ST, Micic D, Chenoweth E, Deng L, Galecki AT, Jain R, Trivedi I, Yu M, Santhosh K, Ring C, **Young VB**, Huffnagle GB, Aronoff DM: Procalcitonin levels associate with severity of *Clostridium difficile* infection. PLoS ONE 8(3): e58265, 2013. PM23505476
60. Lozupone C, Cota-Gomez A, Palmer BE, Linderman DJ, Charlson ES, Sodergren E, Mitreva M, Abubucker S, Martin J, Yao G, Campbell TB, Flores SC, Ackerman G, Stombaugh J, Ursell L, Beck JM, Curtis JL, **Young VB**, Lynch SV, Huang L, Weinstock GM, Knox KS, Twigg H, Morris A, Ghedin E, Bushman FD, Collman RG, Knight R, Fontenot AP, Lung HIV Microbiome Project: Widespread colonization of the lung by *Tropheryma whippelii* in HIV infection Am. J. Respir. Crit. Care Med. 187(10): 1110-1117, 2013. PM23392441
61. Sun Y, Zhang M, Chen CC, Gilliland 3rd M, Sun X, El-Zaatari M, Huffnagle GB, **Young VB**, Zhang J, Hong SC, Chang YM, Gumucio DL, Owyang C, Kao JY: Stress-induced corticotropin-releasing hormone-mediated NLRP6 inflammasome inhibition and transmissible enteritis in mice Gastroenterology 144(7): 1478-1487.e8, 2013. PM23470617

62. Morris A, Beck JM, Schloss PD, Campbell TB, Crothers K, Curtis JL, Flores SC, Fontenot AP, Ghedin E, Huang L, Jablonski K, Kleeerup E, Lynch SV, Sodergren E, Twigg H, **Young VB**, Bassis CM, Venkataraman A, Schmidt TM, Weinstock GM.: Comparison of the respiratory microbiome in healthy nonsmokers and smokers *Am. J. Respir. Crit. Care Med.* 187(10): 1067-1075, 2013. PM23491408
63. Denson LA, Long MD, McGovern DP, Kugathasan S, Wu GD, **Young VB**, Pizarro TT, de Zoeten EF, Stappenbeck TS, Plevy SE, Abraham C, Nusrat A, Jobin C, McCole DF, Siegel CA, Higgins PD, Herfarth HH, Hyams J, Sandborn WJ, Loftus Jr EV, Kappelman MD, Lewis JD, Parkos CA, Sartor RB.: Challenges in IBD research: Update on progress and prioritization of the CCFA's research agenda *Inflamm. Bowel Dis.* 19(4): 677-682, 2013. PM23448796
64. Carmody LA, Zhao J, Schloss PD, Petrosino JF, Murray S, **Young VB**, Li JZ, LiPuma JJ: Changes in cystic fibrosis airway microbiota at pulmonary exacerbation *Ann Am Thorac Soc* 10(3): 179-187, 2013. PM23802813
65. Rao K, Micic D, Chenoweth E, Deng L, Galecki AT, Ring C, **Young VB**, Aronoff DM, Malani PN: Poor functional status as a risk factor for severe *Clostridium difficile* infection in hospitalized older adults *J Am Geriatr Soc* 61(10): 1738-1742, 2013. PM24083842
66. Koenigsknecht MJ, **Young VB**: Faecal microbiota transplantation for the treatment of recurrent *Clostridium difficile* infection: Current promise and future needs *Curr. Opin. Gastroenterol.* 29(6): 628-632, 2013. PM24100717
67. Sadighi Akha AA, Theriot CM, Erb-Downward JR, McDermott AJ, Falkowski NR, Tyra HM, Rutkowski DT, **Young VB**, Huffnagle GB: Acute infection of mice with *Clostridium difficile* leads to eIF2 α phosphorylation and pro-survival signalling as part of the mucosal inflammatory response *Immunology* 140(1): 111-122, 2013. PM23668260
68. Rogers MA, Greene MT, **Young VB**, Saint S, Langa KM, Kao JY, Aronoff DM: Depression, antidepressant medications, and risk of *Clostridium difficile* infection *BMC Med* 11(1): 121, 2013. PM23647647
69. Natarajan M, Walk ST, **Young VB**, Aronoff DM: A clinical and epidemiological review of non-toxigenic *Clostridium difficile* *Anaerobe* 22: 1-5, 2013. PM23727391
70. Walk ST, Micic D, Galecki AT, **Young VB**, Aronoff DM: Understanding increased mortality in *Clostridium difficile*-infected older adults *Clin. Infect. Dis.* 57(4): 625-626, 2013. PM23658435
71. Lawley TD, **Young VB**: Murine models to study *Clostridium difficile* infection and transmission *Anaerobe* 24: 94-97, 2013. PM24076318
72. Behroozian AA, Chludzinski JP, Lo ES, Ewing SA, Waslawski S, Newton DW, **Young VB**, Aronoff DM, Walk ST: Detection of mixed populations of *Clostridium difficile* from symptomatic patients using capillary-based polymerase chain reaction ribotyping *Infect Control Hosp Epidemiol* 34(9): 961-966, 2013. PM23917911
73. Carlson PE, Walk ST, Bourgis AE, Liu MW, Koplaku F, Lo E, **Young VB**, Aronoff DM, Hanna PC: The relationship between phenotype, ribotype, and clinical disease in human *Clostridium difficile* isolates *Anaerobe* 24: 109-116, 2013. PM23608205
74. Irwin R, Lee T, **Young VB**, Parameswaran N, McCabe LR: Colitis-induced bone loss is gender dependent and associated with increased inflammation *Inflamm. Bowel Dis.* 19(8): 1586-1597, 2013. PM23702805
75. Walk ST, Micic D, Galecki AT, Rogers MA, Washer L, Newton DW, Malani PN, **Young VB**, Aronoff DM: Reply to Walker et al *Clin. Infect. Dis.* 56(12): 1846-1847, 2013. PM23420819
76. Waslawski S, Lo ES, Ewing SA, **Young VB**, Aronoff DM, Sharp SE, Novak-Weekley SM, Crist AE, Dunne WM, Hoppe-Bauer J, Johnson M, Brecher SM, Newton DW, Walk ST: *Clostridium difficile* ribotype diversity at six health care institutions in the United States *J. Clin. Microbiol.* 51(6): 1938-1941, 2013. PM23554188
77. Jain R, Walk ST, Aronoff DM, **Young VB**, Newton DW, Chenoweth CE, Washer LL: Emergence of carbapenemase-producing *Klebsiella pneumoniae* of sequence type 258 in Michigan, USA. *Infectious disease reports* 5(1): e5, 2013. PM24470956
78. Nagalingam NA, Robinson CJ, Bergin IL, Eaton KA, Huffnagle GB, **Young VB**: The effects of intestinal microbial community structure on disease manifestation in IL-10 $^{-/-}$ mice infected with *Helicobacter hepaticus*. *Microbiome* 1(1): 15, 2013. PM24450737
79. Nelson AM, Elftman MD, Pinto AK, Baldrige M, Hooper P, Kuczynski J, Petrosino JF, **Young VB**, Wobus CE: Murine norovirus infection does not cause major disruptions in the murine intestinal microbiota. *Microbiome* 1(1): 7, 2013. PM24451302

80. Vital M, Penton CR, Wang Q, **Young VB**, Antonopoulos DA, Sogin ML, Morrison HG, Raffals L, Chang EB, Huffnagle GB, Schmidt TM, Cole JR, Tiedje JM: A gene-targeted approach to investigate the intestinal butyrate-producing bacterial community. *Microbiome* 1(1): 8, 2013. PM24451334
81. **Young VB**, Raffals LH, Huse SM, Vital M, Dai D, Schloss PD, Brulc JM, Antonopoulos DA, Arrieta RL, Kwon JH, Reddy KG, Hubert NA, Grim SL, Vineis JH, Dalal S, Morrison HG, Eren AM, Meyer F, Schmidt TM, Tiedje JM, Chang EB, Sogin ML: Multiphasic analysis of the temporal development of the distal gut microbiota in patients following ileal pouch anal anastomosis. *Microbiome* 1(1): 9, 2013. PM24451366
82. **Young VB**, Hanna PC: Overlapping roles for toxins in *Clostridium difficile* infection. *J. Infect. Dis.* 209(1): 9-11, 2014. PM23983214
83. Britton RA, **Young VB**: Role of the intestinal microbiota in resistance to colonization by *Clostridium difficile*. *Gastroenterology* 146(6): 1547-1553, 2014. PM24503131
84. Theriot CM, **Young VB**: Microbial and metabolic interactions between the gastrointestinal tract and *Clostridium difficile* infection. *Gut microbes* 5(1): 86-95, 2014. PM24335555
85. Bassis CM, Tang AL, **Young VB**, Pynnonen MA: The nasal cavity microbiota of healthy adults. *Microbiome* 2: 27, 2014. PM25143824
86. Bassis CM, Theriot CM, **Young VB**: Alteration of the murine gastrointestinal microbiota by tigecycline leads to increased susceptibility to *Clostridium difficile* infection. *Antimicrobial agents and chemotherapy* 58(5): 2767-74, 2014. PM24590475
87. Huse SM, **Young VB**, Morrison HG, Antonopoulos DA, Kwon J, Dalal S, Arrieta R, Hubert NA, Shen L, Vineis JH, Koval JC, Sogin ML, Chang EB, Raffals LE: Comparison of brush and biopsy sampling methods of the ileal pouch for assessment of mucosa-associated microbiota of human subjects. *Microbiome* 2(1): 5, 2014. PM24529162
88. McDermott AJ, Frank CR, Falkowski NR, McDonald RA, **Young VB**, Huffnagle GB: Role of GM-CSF in the inflammatory cytokine network that regulates neutrophil influx into the colonic mucosa during *Clostridium difficile* infection in mice. *Gut microbes* 5(4): 476-84, 2014. PM25045999
89. Schubert AM, Rogers MA, Ring C, Mogle J, Petrosino JP, **Young VB**, Aronoff DM, Schloss PD: Microbiome data distinguish patients with *Clostridium difficile* infection and non-*C. difficile*-associated diarrhea from healthy controls. *mBio* 5(3): e01021-14, 2014. PM24803517
90. Seekatz AM, **Young VB**: *Clostridium difficile* and the microbiota. *The Journal of clinical investigation* 124(10): 4182-9, 2014. PM25036699
91. Theriot CM, Koenigsnecht MJ, Carlson PE Jr, Hatton GE, Nelson AM, Li B, Huffnagle GB, Z Li J, **Young VB**: Antibiotic-induced shifts in the mouse gut microbiome and metabolome increase susceptibility to *Clostridium difficile* infection. *Nature Communications* 5: 3114, 2014. PM24445449
92. Trindade BC, Theriot CM, Leslie JL, Carlson PE Jr, Bergin IL, Peters-Golden M, **Young VB**, Aronoff DM: *Clostridium difficile*-induced colitis in mice is independent of leukotrienes. *Anaerobe* 30: 90-8, 2014. PM25230329
93. Rajala MW, Patterson CM, Opp JS, Foltin SK, **Young VB**, Myers Jr MG: Leptin acts independently of food intake to modulate gut microbial composition in male mice. *Endocrinology* 155(3): 748-757, 2014. PM24424041
94. El-Zaatari M, Chang YM, Zhang M, Franz M, Shreiner A, McDermott AJ, van der Sluijs KF, Lutter R, Grasberger H, Kamada N, **Young VB**, Huffnagle GB, Kao JY: Tryptophan catabolism restricts IFN- γ -expressing neutrophils and *Clostridium difficile* immunopathology. *J. Immunol.* 193(2): 807-816, 2014. PM24935925
95. Rao K, **Young VB**, Aronoff DM: Fecal microbiota therapy: Ready for prime time? *Infect Control Hosp Epidemiol* 35(1): 28-30, 2014. PM24334795
96. Hashway SA, Bergin IL, Bassis CM, Uchihashi M, Schmidt KC, **Young VB**, Aronoff DM, Patton DL, Bell JD: Impact of a hormone-releasing intrauterine system on the vaginal microbiome: A prospective baboon model. *J. Med. Primatol.* 43(2): 89-99, 2014. PM24266633
97. Islam J, Taylor AL, Rao K, Huffnagle G, **Young VB**, Rajkumar C, Cohen J, Papatheodorou P, Aronoff DM, Llewelyn MJ: The role of the humoral immune response to *Clostridium difficile* toxins A and B in susceptibility to *C. difficile* infection: A case-control study. *Anaerobe* 27: 82-86, 2014. PM24708941
98. Rao K, Erb-Downward JR, Walk ST, Micic D, Falkowski N, Santhosh K, Mogle JA, Ring C, **Young VB**, Huffnagle GB, Aronoff DM: The systemic inflammatory response to *Clostridium difficile* infection. *PLoS ONE* 9(3): e92578, 2014. PM24643077

99. Rogers MA, Micic D, Blumberg N, **Young VB**, Aronoff DM: Storage duration of red blood cell transfusion and *Clostridium difficile* infection: A within person comparison PLoS ONE 9(2): e89332, 2014. PM24586694
100. Seekatz AM, Aas J, Gessert CE, Rubin TA, Saman DM, Bakken JS, **Young VB**: Recovery of the gut microbiome following fecal microbiota transplantation MBio 5(3): e16384. doi: 10.1371/journal.pone.0016384, 2014. PM24939885
101. Kopluku FA, Schubert AM, Mogle J, Schloss PD, **Young VB**, Aronoff DM: Low prevalence of *Clostridium septicum* fecal carriage in an adult population. Anaerobe 32: 34-6, 2015. PM25481351
102. Leslie JL, Huang S, Opp JS, Nagy MS, Kobayashi M, **Young VB**, Spence JR: Persistence and toxin production by *Clostridium difficile* within human intestinal organoids result in disruption of epithelial paracellular barrier function. Infection and immunity 83(1): 138-45, 2015. PM25312952
103. Sadighi Akha AA, McDermott AJ, Theriot CM, Carlson PE Jr, Frank CR, McDonald RA, Falkowski NR, Bergin IL, **Young VB**, Huffnagle GB: Interleukin-22 and CD160 play additive roles in the host mucosal response to *Clostridium difficile* infection in mice. Immunology 144(4): 587-97, 2015. PM25327211
104. Bassis CM, Erb-Downward JR, Dickson RP, Freeman CM, Schmidt TM, **Young VB**, Beck JM, Curtis JL, Huffnagle GB: Analysis of the upper respiratory tract microbiotas as the source of the lung and gastric microbiotas in healthy individuals. mBio 6(2): e00037, 2015. PM25736890
105. Carlson PE Jr, Kaiser AM, McColm SA, Bauer JM, **Young VB**, Aronoff DM, Hanna PC: Variation in germination of *Clostridium difficile* clinical isolates correlates to disease severity. Anaerobe 33: 64-70, 2015. PM25681667
106. Leslie JL, **Young VB**: The rest of the story: the microbiome and gastrointestinal infections. Current opinion in microbiology 23: 121-5, 2015. PM25461582
107. Martinson JN, Broadaway S, Lohman E, Johnson C, Alam MJ, Khaleduzzaman M, Garey KW, Schlackman J, **Young VB**, Santhosh K, Rao K, Lyons RH Jr, Walk ST: Evaluation of portability and cost of a fluorescent PCR ribotyping protocol for *Clostridium difficile* epidemiology. Journal of clinical microbiology 53(4): 1192-7, 2015. PM25631804
108. McDermott AJ, Higdon KE, Muraglia R, Erb-Downward JR, Falkowski NR, McDonald RA, **Young VB**, Huffnagle GB: The role of Gr-1(+) cells and tumour necrosis factor- α signalling during *Clostridium difficile* colitis in mice. Immunology 144(4): 704-16, 2015. PM25399934
109. Rao K, **Young VB**: Fecal microbiota transplantation for the management of *Clostridium difficile* infection. Infectious disease clinics of North America 29(1): 109-22, 2015. PM25677705
110. Shreiner AB, Kao JY, **Young VB**: The gut microbiome in health and in disease. Current opinion in gastroenterology 31(1): 69-75, 2015. PM25394236
111. Theriot CM, Schumacher CA, Bassis CM, Seekatz AM, **Young VB**: Effects of tigecycline and vancomycin administration on established *Clostridium difficile* infection. Antimicrobial agents and chemotherapy 59(3): 1596-604, 2015. PM25547352
112. Venkataraman A, Bassis CM, Beck JM, **Young VB**, Curtis JL, Huffnagle GB, Schmidt TM: Application of a neutral community model to assess structuring of the human lung microbiome. mBio 6(1): pii: e02284-14. doi: 10.1128/mBio.02284-14, 2015. PM25604788
113. Rao K, Micic D, Natarajan M, Winters S, Kiel MJ, Walk ST, Santhosh K, Mogle JA, Galecki AT, LeBar W, Higgins PD, **Young VB**, Aronoff DM: *Clostridium difficile* ribotype 027: relationship to age, detectability of toxins A or B in stool with rapid testing, severe infection, and mortality. Clin Infect Dis 61(2): 233-41, 2015. PM25828993/PMC4565993
114. Micic D, Rao K, Trindade BC, Walk ST, Chenoweth E, Jain R, Trivedi I, Santhosh K, **Young VB**, Aronoff DM: Serum 25-Hydroxyvitamin D Levels are not associated with adverse outcomes in *Clostridium difficile* infection. Infect Dis Rep 7(3): 5979, 2015. PM26500740/PMC4593886
115. Koenigsknecht MJ, Theriot CM, Bergin IL, Schumacher CA, Schloss PD, **Young VB**: Dynamics and establishment of *Clostridium difficile* infection in the murine gastrointestinal tract. Infect Immun 83(3): 934-41, 2015. PM25534943/PMC4333439
116. Seekatz AM, Theriot CM, Molloy CT, Wozniak KL, Bergin IL, **Young VB**: Fecal microbiota transplantation eliminates *Clostridium difficile* in a murine model of relapsing disease. Infect Immun 83(10): 3838-46, 2015. PM26169276/PMC4567621
117. Theriot CM, **Young VB**: Interactions between the gastrointestinal microbiome and *Clostridium difficile*. Annu Rev Microbiol 69: 445-61, 2015. PM26488281

118. Beck JM, Schloss PD, Venkataraman A, Twigg H 3rd, Jablonski KA, Bushman FD, Campbell TB, Charlson ES, Collman RG, Crothers K, Curtis JL, Drews KL, Flores SC, Fontenot AP, Foulkes MA, Frank I, Ghedin E, Huang L, Lynch SV, Morris A, Palmer BE, Schmidt TM, Sodergren E, Weinstock GM, **Young VB**, Lung HIV Microbiome Project: Multicenter comparison of lung and oral microbiomes of HIV-infected and HIV-uninfected individuals. *Am J Respir Crit Care Med* 192(11): 1335-44, 2015. PM26247840
119. Rao K, **Young VB**, Aronoff DM: Reply to Planche et al. *Clin Infect Dis* 61(7): 1211-2, 2015. PM26092487 /PMC4560910
120. Liechty ER, Bergin IL, Bassis CM, Chai D, LeBar W, **Young VB**, Bell JD: The levonorgestrel-releasing intrauterine system is associated with delayed endocervical clearance of *Chlamydia trachomatis* without alterations in vaginal microbiota. *Pathog Dis* 73(8): ftv070, 2015. PM26371177/PMC4626584
121. Natarajan M, Rogers MA, Bundy J, Micic D, Walk ST, Santhosh K, Rao K, Winters S, **Young VB**, Aronoff DM: Gender differences in non-toxigenic *Clostridium difficile* colonization and risk of subsequent *C. difficile* infection. *Clin Res Infect Dis* 2(2): pii: 1017. Epub 2015 Aug 3, 2015. PM28713874/PMC5508598
122. McDermott AJ, Falkowski NR, McDonald RA, Pandit CR, **Young VB**, Huffnagle GB: Interleukin-23 (IL-23), independent of IL-17 and IL-22, drives neutrophil recruitment and innate inflammation during *Clostridium difficile* colitis in mice. *Immunology* 147(1): 114-24, 2016. PM26455347/PMC4693884
123. Leslie JL, **Young VB**: A whole new ball game: Stem cell-derived epithelia in the study of host-microbe interactions. *Anaerobe* 37: 25-8, 2016. PM26549696
124. Mathewson ND, Jenq R, Mathew AV, Koenigsknecht M, Hanash A, Toubai T, Oravec-Wilson K, Wu SR, Sun Y, Rossi C, Fujiwara H, Byun J, Shono Y, Lindemans C, Calafiore M, Schmidt TC, Honda K, **Young VB**, Pennathur S, van den Brink M, Reddy P: Gut microbiome-derived metabolites modulate intestinal epithelial cell damage and mitigate graft-versus-host disease. *Nat Immunol* 17(5): 505-13, 2016. PM26998764/PMC4836986
125. Seekatz AM, Rao AM, Santhosh K, **Young VB**: Dynamics of the fecal microbiome in patients with recurrent and nonrecurrent *Clostridium difficile* infection. *Genome Med* 8(1): 47, 2016. PM27124953
126. Theriot CM, Bowman AA, **Young VB**: Antibiotic-induced alterations of the gut microbiota alter secondary bile acid production and allow for *Clostridium difficile* spore germination and outgrowth in the large intestine. *mSphere* 1(1): pii: e00045-15. doi: 10.1128/mSphere.00045-15, 2016. PM27239562 /PMC4863611
127. Rao K, Santhosh K, Mogle JA, Higgins PD, **Young VB**: Elevated fecal calprotectin associates with adverse outcomes from *Clostridium difficile* infection in older adults. *Infect Dis (Lond)* 48(9): 663-9, 2016. PM27206404/PMC4951100
128. **Young VB**, Hayden MK: Environmental management in the gut: fecal transplantation to restore the intestinal ecosystem. *Infect Dis (Lond)* 48(8): 593-5, 2016. PM27143316/PMC4962779
129. Noecker C, Eng A, Srinivasan S, Theriot CM, **Young VB**, Jansson JK, Fredricks DN, Borenstein E: Metabolic model-based integration of microbiome taxonomic and metabolomic profiles elucidates mechanistic links between ecological and metabolic variation. *mSystems* 1(1): pii: e00013-15. Epub 2016 Jan 19, 2016. PM27239563/PMC4883586
130. Stokely JN, Niendorf S, Taube S, Hoehne M, **Young VB**, Rogers MA, Wobus CE: Prevalence of human norovirus and *Clostridium difficile* coinfections in adult hospitalized patients. *Clin Epidemiol* 8: 253-60, 2016. PM27418856/PMC4934455
131. Seekatz AM, Rao K, Santhosh K, **Young VB**: Dynamics of the fecal microbiome in patients with recurrent and nonrecurrent *Clostridium difficile* infection. *Genome Med* 8(1): 47, 2016. PM27121861/PMC4847246
132. Mathewson ND, Jenq R, Mathew AV, Koenigsknecht M, Hanash A, Toubai T, Oravec-Wilson K, Wu SR, Sun Y, Rossi C, Fujiwara H, Byun J, Shono Y, Lindemans C, Calafiore M, Schmidt TC, Honda K, **Young VB**, Pennathur S, van den Brink M, Reddy P: Corrigendum: Gut microbiome-derived metabolites modulate intestinal epithelial cell damage and mitigate graft-versus-host disease. *Nat Immunol* 17(10): 1235, 2016. PM27648549
133. **Young VB**: Therapeutic manipulation of the microbiota: past, present and considerations for the future. *Clin Microbiol Infect* 22(11): 905-909, 2016. PM27619640
134. Desai MS, Seekatz AM, Koropatkin NM, Kamada N, Hickey CA, Wolter M, Pudlo NA, Kitamoto S, Terrapon N, Muller A, **Young VB**, Henrissat B, Wilmes P, Stappenbeck TS, Núñez G, Martens EC: A dietary fiber-deprived gut microbiota degrades the colonic mucus barrier and enhances pathogen susceptibility. *Cell* 167(5): 1339-1353.e21, 2016. PM27863247/PMC5131798

135. Nagao-Kitamoto H, Shreiner AB, Gilliland MG 3rd, Kitamoto S, Ishii C, Hirayama A, Kuffa P, El-Zaatari M, Grasberger H, Seekatz AM, Higgins PD, **Young VB**, Fukuda S, Kao JY, Kamada N: Functional characterization of inflammatory bowel disease-associated gut dysbiosis in gnotobiotic mice. *Cell Mol Gastroenterol Hepatol* 2(4): 468-481, 2016. PM27795980/PMC5042563
136. Seekatz AM, **Young VB**: Infection: Modulation of *Clostridium difficile* infection by dietary zinc. *Nat Rev Gastroenterol Hepatol* 13(12): 686-688, 2016. PM27826138
137. Dahl JU, Gray MJ, Bazopoulou D, Beaufay F, Lempart J, Koenigsnecht MJ, Wang Y, Baker JR, Hasler WL, **Young VB**, Sun D, Jakob U: The anti-inflammatory drug mesalamine targets bacterial polyphosphate accumulation. *Nat Microbiol* 2: 16267, 2017. PM28112760
138. **Young VB**: The role of the microbiome in human health and disease: an introduction for clinicians. *BMJ* 356: j831, 2017. PM28298355
139. Chen L, Wilson JE, Koenigsnecht MJ, Chou WC, Montgomery SA, Truax AD, Brickey WJ, Packey CD, Maharshak N, Matsushima GK, Plevy SE, **Young VB**, Sartor RB, Ting JP: NLRP12 attenuates colon inflammation by maintaining colonic microbial diversity and promoting protective commensal bacterial growth. *Nat Immunol* 18(8): 951, 2017. PM28288099
140. McDermott AJ, Falkowski NR, McDonald RA, Frank CR, Pandit CR, **Young VB**, Huffnagle GB: Role of interferon- γ and inflammatory monocytes in driving colonic inflammation during acute *Clostridium difficile* infection in mice. *Immunology* 150(4): 468-477, 2017. PM27995603/PMC5343354
141. Bassis CM, Moore NM, Lolans K, Seekatz AM, Weinstein RA, **Young VB**, Hayden MK, CDC Prevention Epicenters Program.: Comparison of stool versus rectal swab samples and storage conditions on bacterial community profiles. *BMC Microbiol* 17(1): 78, 2017. PM28359329/PMC5374586
142. Ulrich RJ, Santhosh K, Mogle JA, **Young VB**, Rao K: Is *Clostridium difficile* infection a risk factor for subsequent bloodstream infection? *Anaerobe* 48: 27-33, 2017. PM28669864
143. Dieterle MG, **Young VB**: Reducing recurrence of *C. difficile* infection. *Cell* 169(3): 375, 2017. PM28431238
144. Bassis CM, Allsworth JE, Wahl HN, Sack DE, **Young VB**, Bell JD: Effects of intrauterine contraception on the vaginal microbiota. *Contraception* 96(3): 189-95, 2017. PM28624570
145. **Young VB**: Treatment with fecal microbiota transplantation: The need for complete methodological reporting for clinical trials. *Ann Intern Med* 167(1): 61-62, 2017. PM28531905
146. **Young VB**: Old and new models for studying host-microbe interactions in health and disease: *C. difficile* as an example. *Am J Physiol Gastrointest Liver Physiol* 312(6): G623-G627, 2017. PM28360030
147. Rao K, **Young VB**: Probiotics for prevention of *Clostridium difficile* infection in hospitalized patients: Is the jury still out? *Gastroenterology* 152(8): 1817-1819, 2017. PM28461190
148. Evans SJ, Bassis CM, Hein R, Assari S, Flowers SA, Kelly MB, **Young VB**, Ellingrod VE, McInnis MG: The gut microbiome composition associates with bipolar disorder and illness severity. *J Psychiatr Res* 87: 23-29, 2017. PM27988330/PMC5336480
149. Jenior ML, Leslie JL, **Young VB**, Schloss PD: *Clostridium difficile* colonizes alternative nutrient niches during infection across distinct murine gut microbiomes. *mSystems* 2(4): pii: e00063-17. doi: 10.1128/mSystems.00063-17, 2017. PM28761936/PMC5527303
150. Chen L, Wilson JE, Koenigsnecht MJ, Chou WC, Montgomery SA, Truax AD, Brickey WJ, Packey CD, Maharshak N, Matsushima GK, Plevy SE, **Young VB**, Sartor RB, Ting JP: Erratum: NLRP12 attenuates colon inflammation by maintaining colonic microbial diversity and promoting protective commensal bacterial growth. *Nat Immunol* 18(8): 951, 2017. PM28722719
151. Rao K, **Young VB**, Malani PN: Capsules for fecal microbiota transplantation in recurrent *Clostridium difficile* infection: The new way forward or a tough pill to swallow? *JAMA* 318(20): 1979-1980, 2017. PM29183052
152. Chen L, Wilson JE, Koenigsnecht MJ, Chou WC, Montgomery SA, Truax AD, Brickey WJ, Packey CD, Maharshak N, Matsushima GK, Plevy SE, **Young VB**, Sartor RB, Ting JP: Corrigendum: NLRP12 attenuates colon inflammation by maintaining colonic microbial diversity and promoting protective commensal bacterial growth. *Nat Immunol* 18(11): 1270, 2017. PM29044233
153. Mills JP, Rao K, **Young VB**: Probiotics for prevention of *Clostridium difficile* infection. *Curr Opin Gastroenterol* Epub ahead of print: doi: 10.1097, 2017. PM29189354
154. Hill DR, Huang S, Nagy MS, Yadagiri VK, Fields C, Mukherjee D, Bons B, Dedhia PH, Chin AM, Tsai YH, Thodla S, Schmidt TM, Walk S, **Young VB**, Spence JR: Bacterial colonization stimulates a complex physiological response in the immature human intestinal epithelium. *Elife* 6: e29132, 2017. PM29110754

155. Hill DR, Huang S, Tsai YH, Spence JR, **Young VB**: Real-time Measurement of Epithelial Barrier Permeability in Human Intestinal Organoids. *J Vis Exp* (130): e56960, 2017. PM29286482/PMC5755602
156. Daquigan N, Seekatz AM, Greathouse KL, **Young VB**, White JR: High-resolution profiling of the gut microbiome reveals the extent of *Clostridium difficile* burden. *NPJ Biofilms Microbiomes* 3: 35, 2017. PM29214047/PMC5717231
157. Seekatz AM, **Young VB**: The Tangled Web of Interactions Between Host, Pathogen, and Microbiota in *Clostridium difficile* Infection. *Gastroenterology* 154(6): 1573-6, 2018. PM29601830
158. Seekatz AM, Theriot CM, Rao K, Chang YM, Freeman AE, Kao JY, **Young VB**: Restoration of short chain fatty acid and bile acid metabolism following fecal microbiota transplantation in patients with recurrent *Clostridium difficile* infection. *Anaerobe* S1075-9964(18): 30058-1, 2018. PM29654837
159. Eastman AJ, Bergin IL, Chai D, Bassis CM, LeBar W, Oluoch GO, Liechty ER, Nyachio A, **Young VB**, Aronoff DM, Patton DL, Bell JD: Impact of the Levonorgestrel-Releasing Intrauterine System on the Progression of Chlamydia trachomatis Infection to Pelvic Inflammatory Disease in a Baboon Model. *J Infect Dis* 217(4): 656-666, 2018. PM29253201/PMC5853867
160. Oh J, Makar M, Fusco C, McCaffrey R, Rao K, Ryan EE, Washer L, West LR, **Young VB**, Gutttag J, Hooper DC, Shenoy ES, Wiens J: A Generalizable, Data-Driven Approach to Predict Daily Risk of *Clostridium difficile* Infection at Two Large Academic Health Centers. *Infect Control Hosp Epidemiol* 39(4): 425-433, 2018. PM29576042
161. Seekatz AM, Wolfrum E, DeWald CM, Putler RKB, Vendrov KC, Rao K, **Young VB**: Presence of multiple *Clostridium difficile* strains at primary infection is associated with development of recurrent disease. *Anaerobe* S1075-9964(18): 30102-1, 2018. PM29859301
162. Jenior ML, Leslie JL, **Young VB**, Schloss PD: *Clostridium difficile* Alters the Structure and Metabolism of Distinct Cecal Microbiomes during Initial Infection To Promote Sustained Colonization. *mSphere* 3(3): e00261-18, 2018. PM29950381/PMC6021602
163. Rao K, Higgins PDR, **Young VB**: An Observational Cohort Study of *Clostridium difficile* Ribotype 027 and Recurrent Infection. *mSphere* 3(3): e00033-18, 2018. PM29794054/PMC5967198
164. Seekatz AM, Bassis CM, Fogg L, Moore NM, Rhee Y, Lolans K, Weinstein RA, Lin MY, **Young VB**, Hayden MK, Centers for Disease Control and Prevention Epicenters Program.: Gut Microbiota and Clinical Features Distinguish Colonization With *Klebsiella pneumoniae* Carbapenemase-Producing *Klebsiella pneumoniae* at the Time of Admission to a Long-term Acute Care Hospital. *Open Forum Infect Dis* 5(8): ofy190, 2018. PM30151415/PMC6101546
165. Dieterle MG, Rao K, **Young VB**: Novel therapies and preventative strategies for primary and recurrent *Clostridium difficile* infections. *Ann N Y Acad Sci* epub: ahead of print, 2018. PM30238983
166. Shimasaki T, Seekatz A, Bassis C, Rhee Y, Yelin RD, Fogg L, Dangana T, Cisneros EC, Weinstein RA, Okamoto K, Lolans K, Schoeny M, Lin MY, Moore NM, **Young VB**, Hayden MK, Centers for Disease Control and Prevention Epicenters Program.: Increased relative abundance of *Klebsiella pneumoniae* carbapenemase-producing *Klebsiella pneumoniae* within the gut microbiota is associated with risk of bloodstream infection in long-term acute care hospital patients. *Clin Infect Dis EPUB*: ahead of print, 2018. PM30239622
167. Truax AD, Chen L, Tam JW, Cheng N, Guo H, Koblansky AA, Chou WC, Wilson JE, Brickey WJ, Petrucelli A, Liu R, Cooper DE, Koenigsnecht MJ, **Young VB**, Netea MG, Stienstra R, Sartor RB, Montgomery SA, Coleman RA, Ting JP: The inhibitory innate immune sensor NLRP12 maintains a threshold against obesity by regulating gut microbiota homeostasis. *Cell Host Microbe* 24(3): 364-378.e6, 2018. PM30212649/PMC6161752
168. Leslie JL, Vendrov KC, Jenior ML, **Young VB**: The gut microbiota is associated with clearance of *Clostridium difficile* infection independent of adaptive immunity. *mSphere* 4(1): e00698-18, 2019. PM30700514/PMC6354811
169. Libertucci J, **Young VB**: The role of the microbiota in infectious diseases. *Nat Microbiol* 4(1): 35-45, 2019. PM30546094
170. Mau T, Eckley SS, Bergin IL, Saund K, Villano JS, Vendrov KC, Snitkin ES, **Young VB**, Yung R: Outbreak of murine infection with *Clostridium difficile* associated with the administration of a pre- and perinatal methyl donor diet. *mSphere* 4(2): e00138-19, 2019. PM30894434
171. Seekatz AM, Schnizlein MK, Koenigsnecht MJ, Baker JR, Hasler WL, Bleske BE, **Young VB**, Sun D: Spatial and temporal analysis of the stomach and small-Intestinal microbiota in fasted healthy humans. *mSphere* 4(2): e00126-19, 2019. PM30867328

172. Abernathy-Close L, **Young VB**: Intestinal damage fades, but insults linger: setting the immunological tone for infection. *Cell Host Microbe* 25(5): 636-637, 2019. PM31071292
173. Djuric Z, Bassis CM, Plegue MA, Sen A, Turgeon DK, Herman K, **Young VB**, Brenner DE, Ruffin MT: Increases in colonic bacterial diversity after ω -3 fatty acid supplementation predict decreased colonic prostaglandin E2 concentrations in healthy adults. *J Nutr* in press: XXX, 2019. PM31051496
174. Li BY, Oh J, **Young VB**, Rao K, Wiens J: Using Machine Learning and the Electronic Health Record to Predict Complicated *Clostridium difficile* Infection. *Open Forum Infect Dis* 6(5): ofz186, 2019. PM31139672/PMC6527086
175. Ducarmon QR, Zwitter RD, Hornung BVH, van Schaik W, **Young VB**, Kuijper EJ: Gut Microbiota and Colonization Resistance against Bacterial Enteric Infection. *Microbiol Mol Biol Rev* 83(3): e00007-19, 2019. PM31167904
176. Woodworth MH, Hayden MK, **Young VB**, Kwon JH: The Role of Fecal Microbiota Transplantation in Reducing Intestinal Colonization With Antibiotic-Resistant Organisms: The Current Landscape and Future Directions. *Open Forum Infect Dis* 6(7): ofz288, 2019. PM31363779/PMC6667716
177. Libertucci J, Bassis CM, Cassone M, Gibson K, Lansing B, Mody L, **Young VB**, Meddings J: Bacteria Detected in both Urine and Open Wounds in Nursing Home Residents: a Pilot Study. *mSphere* 4(4): e00463-19, 2019. PM31462413/PMC6714893
178. Woodworth MH, Hayden MK, **Young VB**, Kwon JH: Corrigendum: The Role of Fecal Microbiota Transplantation in Reducing Intestinal Colonization With Antibiotic-Resistant Organisms: The Current Landscape and Future Directions. *Open Forum Infect Dis* 6(10): ofz391, 2019. PM31660354/PMC6800889
179. Das NK, Schwartz AJ, Barthel G, Inohara N, Liu Q, Sankar A, Hill DR, Ma X, Lamberg O, Schnizlein MK, Arqués JL, Spence JR, Nunez G, Patterson AD, Sun D, **Young VB**, Shah YM: Microbial Metabolite Signaling Is Required for Systemic Iron Homeostasis. *Cell Metab* In Press: pending, 2019. PM31708445
180. Schnizlein MK, Vendrov KC, Edwards SJ, Martens EC, **Young VB**: Dietary Xanthan Gum Alters Antibiotic Efficacy against the Murine Gut Microbiota and Attenuates *Clostridioides difficile* Colonization. *mSphere* 5(1): e00708-19, 2020. PM31915217
181. Lee AA, Rao K, Limsrivilai J, Gilliland M, Malamet B, Briggs E, **Young VB**, Higgins PDR: Temporal Gut Microbial Changes Predict Recurrent *Clostridioides Difficile* Infection in Patients With and Without Ulcerative Colitis. *Inflamm Bowel Dis* In press: XX, 2020. PM31971239
182. Nagao-Kitamoto H, Leslie JL, Kitamoto S, Jin C, Thomsson KA, Gilliland MG 3rd, Kuffa P, Goto Y, Jenq RR, Ishii C, Hirayama A, Seekatz AM, Martens EC, Eaton KA, Kao JY, Fukuda S, Higgins PDR, Karlsson NG, **Young VB**, Kamada N: Interleukin-22-mediated host glycosylation prevents *Clostridioides difficile* infection by modulating the metabolic activity of the gut microbiota. *Nat Med* In press: 10.1038/s41591-020-0764-0, 2020. PM32066975
183. Saund K, Rao K, **Young VB**, Snitkin ES: Genetic Determinants of Trehalose Utilization Are Not Associated With Severe *Clostridium difficile* Infection Outcome. *Open Forum Infect Dis* 7(1): ofz548, 2020. PM31976356/PMC6966243
184. Abernathy-Close L, Dieterle MG, Vendrov KC, Bergin IL, Rao K, **Young VB**: Aging dampens the intestinal innate immune response during severe *Clostridioides difficile* infection and is associated with altered cytokine levels and granulocyte mobilization. *Infect Immun* In press: p.1-13, 2020. PM32284366
185. Ransom EM, Burnham CD, Jones L, Kraft CS, McDonald LC, Reinink AR, **Young VB**: Fecal Microbiota Transplantations: Where Are We, Where Are We Going, and What Is the Role of the Clinical Laboratory? *Clin Chem* 66(4): 512-517, 2020. PM32232453
186. Xavier JB, **Young VB**, Skufca J, Ginty F, Testerman T, Pearson AT, Macklin P, Mitchell A, Shmulevich I, Xie L, Caporaso JG, Crandall KA, Simone NL, Godoy-Vitorino F, Griffin TJ, Whiteson KL, Gustafson HH, Slade DJ, Schmidt TM, Walther-Antonio MRS, Korem T, Webb-Robertson BM, Styczynski MP, Johnson WE, Jobin C, Ridlon JM, Koh AY, Yu M, Kelly L, Wargo JA: The Cancer Microbiome: Distinguishing Direct and Indirect Effects Requires a Systemic View. *Trends Cancer* 6(3): 192-204, 2020. PM32101723/PMC7098063
187. **Young VB**: Unexpected results from a phase 2 trial of a microbiome therapeutic for *Clostridioides difficile* infection: Lessons for the future. *Clin Infect Dis* 70: ciaa476, 2020. PM32330238
188. Dieterle MG, Putler R, Perry DA, Menon A, Abernathy-Close L, Perlman NS, Penkevich A, Standke A, Keidan M, Vendrov KC, Bergin IL, **Young VB**, Rao K: Systemic inflammatory mediators are effective biomarkers for predicting adverse outcomes in *Clostridioides difficile* infection. *mBio* 11(3): p. 1-12, 2020. PM32371595

189. Menon A, Perry DA, Motyka J, Weiner S, Standke A, Penkevich A, Keidan M, **Young VB**, Rao K: Changes in the association between diagnostic testing method, PCR ribotype, and clinical outcomes from *Clostridioides difficile* infection: one institution's experience. Clin Infect Dis ePub: in press, 2020. PM32930705
190. Tan JY, Wang S, Dick GJ, **Young VB**, Sherman DH, Burns MA, Lin XN: Co-cultivation of microbial sub-communities in microfluidic droplets facilitates high-resolution genomic dissection of microbial 'dark matter'. Integr Biol (Camb) 12: 263-274, 2020. PM33089329
191. Dheer R, **Young VB**: Stem-cell-derived models: tools for studying role of microbiota in intestinal homeostasis and disease. Curr Opin Gastroenterol In press: Online ahead of print, 2020. PM33149049
192. Barron MR, Cieza RJ, Hill DR, Huang S, Yadagiri VK, Spence JR, **Young VB**: The lumen of human intestinal organoids poses greater stress to bacteria compared to the germ-free mouse intestine: *Escherichia coli* deficient in RpoS as a colonization probe. mSphere 5(6): e00777-20, 2020. PM33177212 /PMC7657587
193. McKee KS, Carter KA, Bassis C, Young VB, Reed B, Harper DM, Ruffin MT 4th, Bell JD: The vaginal microbiota, high-risk human papillomavirus infection, and cervical cytology: results from a population-based study. Gynecol Pelvic Med 3: 2020. PM35252846/PMC8896808
194. Leslie JL, Jenior ML, Vendrov KC, Standke AK, Barron MR, O'Brien TJ, Unverdorben L, Thaprawat P, Bergin IL, Schloss PD, **Young VB**: Protection from lethal *Clostridioides difficile* infection via intraspecies competition for cogerminant. mBio 12(2): e00522-21, 2021. PM33785619
195. Blaser MJ, Devkota S, McCoy KD, Relman DA, Yassour M, **Young VB**: Lessons learned from the prenatal microbiome controversy. Microbiome 9(1): 8, 2021. PM33436098/PMC7805060
196. Shen J, McFarland AG, **Young VB**, Hayden MK, Hartmann EM: Toward accurate and robust environmental surveillance using metagenomics. Front Genet 12: 600111, 2021. PM33747038 /PMC7973286
197. Gilbert J, Leslie J, Putler R, Weiner S, Standke A, Penkevich A, Keidan M, **Young VB**, Rao K: Anti-toxin antibody is not associated with recurrent *Clostridium difficile* infection. Anaerobe 67: 102299, 2021. PM33227427
198. Ranallo RT, Clifford McDonald L, Laufer Halpin A, Hiltke T, **Young VB**: The state of microbiome science at the intersection of infectious diseases and antimicrobial resistance. J Infect Dis Online: In Press, 2021. PM33667294
199. Vornhagen J, Bassis CM, Ramakrishnan S, Hein R, Mason S, Bergman Y, Sunshine N, Fan Y, Holmes CL, Timp W, Schatz MC, **Young VB**, Simner PJ, Bachman MA: A plasmid locus associated with Klebsiella clinical infections encodes a microbiome-dependent gut fitness factor. PLoS Pathog 17(4): e1009537, 2021. PM33930099/PMC8115787
200. Lawrence AE, Abuaita BH, Berger RP, Hill DR, Huang S, Yadagiri VK, Bons B, Fields C, Wobus CE, Spence JR, **Young VB**, O'Riordan MX: Salmonella enterica Serovar Typhimurium SPI-1 and SPI-2 Shape the Global Transcriptional Landscape in a Human Intestinal Organoid Model System. mBio 12(3): epub, 2021. PM34006652
201. Abernathy-Close L, Barron MR, George JM, Dieterle MG, Vendrov KC, Bergin IL, **Young VB**: Intestinal inflammation and altered gut microbiota associated with inflammatory bowel disease render mice susceptible to *Clostridioides difficile* colonization and infection. mBio 12: e0273320, 2021. PM34126769
202. Perry DA, Shirley D, Micic D, Patel CP, Putler R, Menon A, **Young VB**, Rao K: External validation and Comparison of *Clostridioides difficile* severity scoring systems. Clin Infect Dis In press: Online ahead of print, 2021. PM34459885
203. Bloom P, Tapper EB, **Young VB**, Lok AS: Microbiome therapeutics for hepatic encephalopathy. J Hepatol In press: Online ahead of print, 2021. PM34453966
204. Miles-Jay A, **Young VB**, Pamer EG, Savidge TC, Kamboj M, Garey KW, Snitkin ES: A multisite genomic epidemiology study of *Clostridioides difficile* infections in the USA supports differential roles of healthcare versus community spread for two common strains. Microb Genom 7(6): 000590, 2021. PM34180789 /PMC8461479
205. Abuaita BH, Lawrence AE, Berger RP, Hill DR, Huang S, Yadagiri VK, Bons B, Fields C, Wobus CE, Spence JR, **Young VB**, O'Riordan MX: Comparative transcriptional profiling of the early host response to infection by typhoidal and non-typhoidal Salmonella serovars in human intestinal organoids. PLoS Pathog 17(10): e1009987, 2021. PM34669717/PMC8570492
206. Barron MR, **Young VB**: Viewing bacterial colonization through the lens of systems biology. mSystems Online ahead of print: e0138321, 2022. PM35354321

207. Ginga NJ, Slyman R, Kim GA, Parigoris E, Huang S, Yadagiri VK, **Young VB**, Spence JR, Takayama S: Perfusion system for modification of luminal contents of human intestinal organoids and realtime imaging analysis of microbial populations. *Micromachines (Basel)* 13(1): 131, 2022. PM35056297/PMC8779378
208. Ostrowski MP, La Rosa SL, Kunath BJ, Robertson A, Pereira G, Hagen LH, Varghese NJ, Qiu L, Yao T, Flint G, Li J, McDonald SP, Buttner D, Pudlo NA, Schnizlein MK, **Young VB**, Brumer H, Schmidt TM, Terrapon N, Lombard V, Henrissat B, Hamaker B, Eloë-Fadrosch EA, Tripathi A, Pope PB, Martens EC: Mechanistic insights into consumption of the food additive xanthan gum by the human gut microbiota. *Nat Microbiol* 7(4): 556-569, 2022. PM35365790
209. Schnizlein MK, **Young VB**: Capturing the environment of the *Clostridioides difficile* infection cycle. *Nat Rev Gastroenterol Hepatol Online*: EPub ahead of print, 2022. PM35468953
210. Barron MR, Sovacool KL, Abernathy-Close L, Vendrov KC, Standke AK, Bergin IL, Schloss PD, **Young VB**: Intestinal Inflammation Reversibly Alters the Microbiota to Drive Susceptibility to *Clostridioides difficile* Colonization in a Mouse Model of Colitis. *mBio* ePub ahead of press: e0190422, 2022. PM35900107
211. Lesniak NA, Schubert AM, Flynn KJ, Leslie JL, Sinani H, Bergin IL, Young VB, Schloss PD: The Gut Bacterial Community Potentiates *Clostridioides difficile* Infection Severity. *mBio*: e0118322, 2022. PM35856563

Book Chapters

1. **Young, VB**, Schauer, DB, Fox, JG: Animal models of infection with *Campylobacter*.. *Campylobacter* 2nd edition, Irving Nachamkin and Martin J. Blaser American Society for Microbiology Press, Washington, DC, 2000. 287-301
2. **Young, VB** and Mansfield, LS: *Campylobacter* Infection-Clinical Context. *Campylobacter: Molecular and Cellular Biology*, Julian M. Ketley and Michael E. Konkel editors Horizon Bioscience, Norfolk, UK, 2005. 1-12
3. **Young, VB** and Schmidt, TM: Overview of the gastrointestinal microbiota. *GI Microbiota and Regulation of the Immune System*, Gary Huffnagle and Mairi Noverr editors Landes Bioscience, New York, NY, 2008. 29-40
4. Nelson, AM and **Young, VB**: The Indigenous Human Microbiota. *Emerging Trends in Antibacterial Discovery: Answering the Call to Arms*, Miller, AA and Miller, PF Caister Academic Press, 2011. 225-240
5. Gilliland, MG, **Young, VB** AND Huffnagle, GB: Gastrointestinal Microbial Ecology With Perspectives on Health and Disease. *Physiology of the Gastrointestinal Tract*, Johnson, LR, Kaunitz, JD, Said, HM, Ghishan, FK, Merchant, JL and Wood, JD Elsevier, 2012. 5th, 1119-1134
6. Bassis CM, **Young VB**, Schmidt TM.: Methods for Characterizing Microbial Communities Associated With the Human Body. *The Human Microbiota: How Microbial Communities Affect Health and Disease*, Fredricks DN, editor John Wiley & Sons, Inc, Hoboken, New Jersey, 2013. 51-74
7. Gerding, DN and **Young, VB**: *Clostridium difficile* Infection. *Mandell, Douglas and Bennett's Principles and Practice of Infectious Diseases*, Bennett, JE, Dolin, R and Blaser, MJ Elsevier, 2015. 2744-2756
8. Spohn, SN AND **Young, VB**: Gastrointestinal Microbial Ecology With Perspectives on Health and Disease. *Physiology of the Gastrointestinal Tract*, Said, HM Elsevier, 2018. 6th

Books

1. **Vincent B. Young**, William, A. Kormos, Allan H. Goroll: *Blueprints in Medicine*, Blackwell Publishing, Hoboken, NJ, 1998.
2. **Vincent B. Young**, William, A. Kormos, Allan H. Goroll: *Blueprints in Medicine*, Blackwell Publishing, Hoboken, NJ, 2001.
3. **Vincent B. Young**, William, A. Kormos, Allan H. Goroll: *Blueprints in Medicine*, Blackwell Publishing, Hoboken, NJ, 2004.
4. **Vincent B. Young**, William, A. Kormos, Davoren A. Chick, Allan H. Goroll: *Blueprints in Medicine*, Lipincott Williams & Wilkins Publishing, Philadelphia, PA, 2006.
5. **Vincent B. Young**, William, A. Kormos, Davoren A. Chick, Allan H. Goroll: *Blueprints in Medicine*, Lipincott Williams & Wilkins Publishing, Philadelphia, PA, 2009.

Abstracts

1. **Young, V.B.**, Kachoris, M.F., Hibberd, P.L., Ferraro, M.J., and Schauer, D.B.: Atypical Spiral Organisms Isolated from Human Stool, General Meeting of the Infectious Diseases Society of America, 1998.
2. **Young, V.B.**, and Schauer, D.B.: Development of a Method for Allelic Exchange in a Nongastric *Helicobacter*, General Meeting of the Infectious Diseases Society of America, 1998.
3. **Young, V.B.**, Dangler, C.A., Fox, J.G., and Schauer, D.B.: Hyperplastic gastritis in *scid* mice experimentally infected with *Campylobacter fetus*, General Meeting of the American Society for Microbiology, 1999.
4. **Young, V.B.**, and Schauer, D.B.: Identification and characterization of cytolethal distending toxin (CDT) activity in enterohepatic *Helicobacter* species, General Meeting of the American Society for Microbiology, 1999.
5. **Young, V.B.**, Knox, K.A., and Schauer, D.B.: Cytolethal distending toxin sequence and activity in the enterohepatic pathogen *Helicobacter hepaticus*, General Meeting of the Infectious Diseases Society of America, 1999.
6. **Young, V.B.**, Cortez, Jennifer S., and Schauer, David B. : Assessment of the Role of Cytolethal Distending Toxin in Establishing Gastrointestinal Colonization by *Helicobacter hepaticus* in a Mouse Model, 102nd General Meeting of the American Society for Microbiology, 2002.
7. **Young, V.B.** Cortez, Jennifer S., Wilson, David H., and Linz, John: Development of a Transposon Mutagenesis System for Use in *Helicobacter* and *Campylobacter*, General Meeting of the Infectious Diseases Society of America, 2002.
8. **Young, V.B.** Cortez, Jennifer S., Pratt, Jason S., and Schauer, David B.: "Cytolethal Distending Toxin Mutants in *H. hepaticus*" The Role of Cytolethal Distending Toxin in Establishing Gastrointestinal Colonization by *Helicobacter hepaticus*-induced Murine Inflammatory Bowel Disease, 103rd General Meeting of the American Society for Microbiolog, 2003.
9. Kuehl, C.J., and **Young, V.B.**: *Helicobacter hepaticus*-induced changes in the gastrointestinal microbial community of the mouse profiled by terminal-restriction fragment length polymorphism, MSU College of Veterinary Medicine Phi Zeta Research Day, 2003.
10. Dennison, B.R., Burg, M.A., Wilder, S.A. and **Young, V.B.**,: Source tracking of *Campylobacter* retail chicken to human gastroenteritis cases, MSU College of Veterinary Medicine Phi Zeta Research Day, 2003.
11. Pratt, J.A., Cortez, J.S., and **Young, V.B.**,: The role of cytolethal distending toxin in *Helicobacter hepaticus* -induced murine gastrointestinal disease, MSU College of Veterinary Medicine Phi Zeta Research Day, 2003.
12. Wilson, D.L., Green, C.A., Cortez, J.S., Mansfield, LS., and **Young, V.B.**: *Campylobacter jejuni* triggers typhlocolitis in IL-10 knockout mice, 104th General Meeting of the American Society for Microbiology, 2004.
13. Kuehl, C.J., and **Young, V.B.**: *Helicobacter hepaticus*-induced changes in the gastrointestinal microbial community of the mouse profiled by terminal-restriction fragment length polymorphism., 104th General Meeting of the American Society for Microbiology, 2004.
14. Dennison, B.R., Burg, M.A., Wilder, S.A. Whittam, T.S., and **Young, V.B.**: A comparison of human clinical *Campylobacter* isolates to *Campylobacter* isolates from retail chicken., 104th General Meeting of the American Society for Microbiology, 2004.
15. Pratt, J.A., Cortez, J.S., and **Young, V.B.**: Cytolethal distending toxin in the etiopathogenesis of *Helicobacter hepaticus*-induced murine gastrointestinal disease, 104th General Meeting of the American Society for Microbiology, 2004.
16. Dennison, B.R., Sachen, K.A., Wilder, S.A., Burg, M.A., Khalife, W.T., Whittam, T.S., and **Young, V.B.**: Molecular Epidemiologic Evidence Linking *Campylobacter* on Retail Chicken to Human Cases of Gastroenteritis, General Meeting of the Infectious Diseases Society of America, 2004.
17. Sachen, K.A., and **Young, V.B.**: Development of humoral immune responses in *H. hepaticus*-infected mice, 105th General Meeting of the American Society for Microbiology, 2005.
18. Cotey, A.D., and **Young, V.B.**: In vitro activity of recombinant *H. hepaticus* cytolethal distending toxin, 105th General Meeting of the American Society for Microbiology, 2005.

19. Wood, H.D., Kuehl, C.J., and **Young, V.B.**: Murine *H. hepaticus* infection impacts the diversity of the indigenous mucosa-associated microbiota, 105th General Meeting of the American Society for Microbiology, 2005.
20. Pratt, J.A., Sachen, K.A., Eaton, K.A., and **Young, V.B.**: The cytolethal distending toxin of *H. hepaticus* prevents the development of protective host immune responses, 105th General Meeting of the American Society for Microbiology, 2005.
21. Kalra, A., Khlife, W.T., Schmidt, T.M., and **Young, V.B.**: Monitoring changes in the fecal microbiota of patients with antibiotic-associated diarrhea by 16S rRNA gene sequence analysis, General Meeting of the Infectious Diseases Society of America, 2005.
22. Pratt, J.A., Sachen, K.A., Wood, H.D., Eaton, K.A., and **Young, V.B.**: Modulation of host immune responses by the cytolethal distending toxin of *Helicobacter hepaticus*, 105th General Meeting of the American Society for Microbiology, 2006.
23. Wilson, D.L., Plovianich-Jones, A., Qi, W., Wick, L.M., Landgraf, J., Bell, J.A., Rathinam, V.K., Stanley, E., Parrish, J.R., Finley, R.L., **Young, V.B.**, Mansfield, L.S., and Linz, J.E.: Microarray, DNA-DNA hybridization analysis of *Campylobacter jejuni* strains implicates loci involved in the colonization of C57BL/6 IL-10^{-/-} mice, 106th General Meeting of the American Society for Microbiology, 2006.
24. Wood, H.D., Schmidt, T.M. and **Young, V.B.**: Microbial ecology of the mammalian gastrointestinal tract: the effects of antibiotics, host genotype and pathogen colonization on the mucosa-associated microbiota of mice., 106th General Meeting of the American Society for Microbiology, 2006.
25. Wood, H.D., Schmidt, T.M. and **Young, V.B.**: Microbial ecology of the mammalian gastrointestinal tract: the effects of antibiotics, host genotype and pathogen colonization on the mucosa-associated microbiota of mice., CCFA Microbial-Host Interactions in IBD Workshop, St. Petersburg, FL, 2006.
26. Pratt, J.A., Sachen, K.A., Wood, H.D., Eaton, K.A., and **Young, V.B.**: Modulation of host immune responses by the cytolethal distending toxin of *Helicobacter hepaticus*, CCFA Microbial-Host Interactions in IBD Workshop, St. Petersburg, FL, 2006.
27. Chang, J.Y., Kalra, A., Khalife, W.T., Schmidt, T.M., and **Young, V.B.**: Microbial ecology of antibiotic-associated diarrhea, General Meeting of the Infectious Diseases Society of America, Toronto, ON, 2006.
28. **Young, V.B.**, Antonopoulos, D.A., Schmidt, T.M., Pratt, J.S., Blum, A., and Weinstock, J.V.: *Heligmosomoides polygyrus* alters the bacterial microbiota of the murine GI tract, Digestive Diseases Week, Washington, DC, 2007.
29. Walk, S.T., Koplaku, F., Opp, J., Bloom, A., Weinstock, J.V., and **Young, V.B.**: Alteration of the murine gut microbiota by the helminth, *Heligmosomoides polygyrus* and the antihelminthic agent, pyrantel, 109th General Meeting of the American Society for Microbiology, 2009.
30. Robinson, C.J., and **Young, V.B.**: Community structure of the murine gut microbiota and development of infection-mediated inflammatory bowel disease, 109th General Meeting of the American Society for Microbiology, 2009.
31. Nagalingam, N.A., Shen, K.C., and **Young, V.B.**: In vivo and in vitro effects of cefoperazone on the murine pathogen *Helicobacter hepaticus*, 109th General Meeting of the American Society for Microbiology, 2009.
32. J. Zhao, C. J. Robinson, J. Li, J. D. Cavalcoli, **V. B. Young**, J. J. LiPuma: Microbial community dynamics in the cystic fibrosis lung., 110th General Meeting of the American Society for Microbiology, 2010.
33. Robinson, C.J., and **Young, V.B.**: Microbial ecology of the murine gut microbiota and infection-mediated inflammatory bowel disease, 110th General Meeting of the American Society for Microbiology, 2010.
34. Nagalingam, N.A., and **Young, V.B.**: Role of the indigenous gut microbiota in murine colitis triggered by *Helicobacter hepaticus*, Presented at the 110th General Meeting of the American Society for Microbiology, 2010.
35. Theriot, C.M., Carlson, P.E., Bergin, I.L., Aronoff, D.M., **Young, V.B.**: Comparative Pathogenicity of *C. difficile* Strains in Cefoperazone-treated Mice , 18th Annual Midwest Microbial Pathogenesis Conference, Ann Arbor, MI, 2011.
36. Sadigh Akha, A.A., Theriot, C.M., McDermott, A.J., Reeves, A.E., **Young, V.B.**, Huffnagle, G.B.: The Local and Systemic Immune Response in a Mouse Model of Acute *Clostridium difficile* Infection, 7th International Conference on the Molecular Biology and Pathogenesis of the Clostridia - Clospath, IA, 2011.

37. Theriot, C.M., Carlson, P.E., Bergin, I.L., Aronoff, D.M., **Young, V.B.**: Different Clostridium difficile Strains Cause Varied Disease Severity in Cefoperazone-treated Mice, 7th International Conference on the Molecular Biology and Pathogenesis of the Clostridia- ClosPath, IA, 2011.
38. Theriot, C.M., Carlson, P.E., Bergin, I.L., **Young, V.B.**: Infection with Different Clostridium difficile Strains Results in Varied Disease Severity in Cefoperazone-treated Mice, National ASM, New Orleans, LA, 2011.
39. Theriot, C.M., Hatton, G.E., Li, J., **Young, V.B.**: Functional Roles of the Gut Microbiota in Colonization Resistance against Clostridium difficile, Anaerobe Society of the Americas, San Francisco, CA, 2012.
40. Theriot, C.M., Hatton, G.E., Li, J., **Young, V.B.**: Functional Roles of the Gut Microbiota in Colonization Resistance against Clostridium difficile, Metabolomics and Obesity Symposium, Ann Arbor, MI, 2012.
41. Leslie, J.L., Opp J.S., Spence J.R., **Young V.B.**: Clostridium difficile Toxins A and B Disrupt Barrier Function in Human Intestinal Organoids, 112th General Meeting of the American Society for Microbiology, 2013.
42. Koenigsnecht, M.J., Wang, D.Y., Bergin, I.L., **Young, V.B.**: The role of the Lachnospiraceae family of bacteria in a murine Model of Clostridium difficile infection, American Society for Microbiology 113th General Meeting, Denver, CO, 2013.
43. Theriot, C.M., Hatton, G.E., Nelson, A., Koenigsnecht, M., Li, B., Li, J., Huffnagle, G., **Young, V.B.**: Shifts in the Gut Microbiome and Metabolome Lead to Susceptibility to Clostridium difficile Infection, Human Microbiome Science Vision for the Future, Bethesda, MD, 2013.
44. Trindade, B.C., Theriot, C.M., **Young, V.B.**, Aronoff, D.M.: Effect of Antibiotics on the Gastrointestinal Tissue Lipidome in a Murine Model of Clostridium difficile Infection, ICAAC, Denver, CO, 2013.
45. Trindade, B.C., Theriot, C. M., Carlson Jr, P.E., Huffnagle, G.B., Peters-Golden, M., **Young, V.B.**, Aronoff, D.M.: Lack of Evidence for Involvement of Leukotrienes as Mediators of Disease Severity in a Murine Model of Clostridium difficile Infection, ICAAC, Denver, CO, 2013.
46. Bassis, C.M., Theriot, C.M., **Young, V.B.**: Changes in the Gut Microbiota and Clostridium difficile Susceptibility with Tigecycline Treatment, National ASM, Denver, CO, 2013.
47. Theriot, C.M., Hatton, G.E., Nelson, A., Koenigsnecht, M., Li, B. Li, J., Huffnagle, G., **Young, V.B.**: Shifts in the Gut Microbiome and Metabolome Lead to Susceptibility to Clostridium difficile Infection, National ASM, Denver, CO, 2013.
48. Zhang, L., Theriot, C.M., Rajendiran, T., Brown, S., **Young, V.B.**: Detection and Quantification of Carbohydrates in the Murine Gastrointestinal Tract Following Antibiotic Treatment and During Clostridium difficile Infection, National American Society for Mass Spectrometry, Minneapolis, MN, 2013.
49. Seekatz AM, Aas J, Gessert CE, Rubin TA, Saman DM, Bakken JS, and **Young V.B.**: Changes in the gut microbiome following fecal microbiota transplantation in patients with recurrent Clostridium difficile infection, Anaerobe, Chicago, IL, 2014.
50. Natarajan M, Rogers MAM, Bundy J, Micic D, Rao K, Winters S, Walk ST, Santhosh K, **Young V.B.**, Aronoff DM.: Non-Toxigenic Clostridium difficile Colonization and Risk of Subsequent C. difficile Infection, European Congress of Clinical Microbiology and Infectious Diseases, Barcelona, Spain, 2014.
51. Seekatz AM, Aas J, Gessert CE, Rubin TA, Saman DM, Bakken JS, and **Young V.B.**: Fecal microbiota transplantation promotes recovery of the gut microbiome in patients with recurrent Clostridium difficile, James W. Freston Conference (FMT), Chicago, IL, 2014.
52. Seekatz AM, Aas J, Gessert CE, Rubin TA, Saman DM, Bakken JS, and **Young V.B.**: Fecal microbiota transplantation promotes recovery of the gut microbiome in patients with recurrent Clostridium difficile, MICHR Symposium, University of Michigan, Ann Arbor, MI, 2014.
53. Bassis, C. M., Seekatz A., Moore N.M., Lolans K., Weinstein R.A., **Young V.B.**, and M. K. Hayden: Comparison of Stool versus Rectal Swab Samples from Long-Term Acute Care Hospital (LTACH) Patients for Microbiota Analysis, CDC Prevention Epicenters Program. 2015, San Diego, CA, 2015.
54. Seekatz AM, Rao K, Santhosh K, **Young VB**: Dynamics of Clostridium difficile and the Gut Microbiota, CLOSTPATH 2015, Freiburg, Germany, 2015.
55. Rao K, Santhosh K, Mogle JA, Higgins PDR, **Young VB**: Elevated Fecal Calprotectin Associates with Severe Clostridium difficile Infection in Older Adults, Digestive Disease Week 2015, Washington, DC, 2015.
56. Ulrich RJ, Rao K, Santhosh K, Mogle JA, **Young VB**: Is Clostridium difficile Infection a Risk Factor for Subsequent Bloodstream Infection?, IDWeek 2015, San Diego, CA, 2015.

57. Rao K, Santhosh K, Mogle JA, Galecki AT, Higgins PDR, **Young VB**: Serum Inflammatory Mediator Profiles Differentiate Patients with Complicated and Uncomplicated *Clostridium difficile* Infection, IDWeek 2015, San Diego, CA, 2015.
58. Seekatz AM, Molloy CT, Wozniak KL, Theriot CM, and **Young VB**: Recovery of colonization resistance via fecal microbiota transplantation in a murine model of recurrent *Clostridium difficile* infection, Keystone Symposia: Gut Microbiota Modulation of Host Physiology, Keystone, CO, 2015.
59. Hill, D. R., Huang, S., Lynn, C., Thodla, S., Young, V. B., Spence, J. R.: Bacterial Colonization Promotes Epithelial Maturation in Human Intestinal Organoids, Midwest Society for Developmental Biology, Midwest Society for Developmental Biology, 2015.
60. Seekatz AM, Theriot CM, Vendrov KC, and **Young VB**: Host-specific fecal microbiota transplantation is more effective in treating recurrent *Clostridium difficile* infection in a murine model, 13th Biennial Congress of the Anaerobe Society of the Americas, Nashville, TN, 2016.
61. Daniel McClung, MD, Internal Medicine, University of Michigan, Ann Arbor, MI, Krishna Rao, MD, MS, Infectious Diseases, University of Michigan Health System, Ann Arbor, MI, Peter D. R. Higgins, MD, PhD, University of Michigan, Ann Arbor, MI and **Vincent B. Young, MD**, PhD, FIDSA, Internal Medicine-Infectious Diseases, University of Michigan, Ann Arbor, MI: Performance of Published *Clostridium difficile* Severity Scoring Systems in an External Cohort, 2016 IDWeek, New Orleans, LA, 2016.
62. Seekatz AM, Theriot CM, Vendrov KC, and **Young VB**: Host-specific fecal microbiota transplantation is more effective in treating recurrent *Clostridium difficile* infection in a murine model, ASM Microbe, Boston, MA, 2016.
63. Rao K, **Young VB**: *Clostridium difficile* ribotype 027 is an independent risk factor for recurrent *C. difficile* infection, Anaerobe 2016, Nashville, TN, 2016.
64. Bassis, C. M., Alaniz, V. I., Sack, D. E., Bullock, K. A., Lynn, C. S., Quint, E. H., **Young, V. B.** and Bell, J. D: Vaginal microbiotas of mother-daughter pairs, Anaerobe, Nashville, TN, 2016.
65. McClung D, Rao K, Higgins PDR, **Young VB**: Performance of Published *Clostridium difficile* Severity Scoring Systems in an External Cohort, IDWeek 2016, New Orleans, LA, 2016.
66. Seekatz AM, Bassis CM, Lolans K, Moore NM, Okamoto K, Rhee Y, Bardowski L, Bell P, Salazar EI, Dangana T, Sidimirova G, Weinstein RA, Fogg L, Lin MY, Young VB, Hayden MK for the CDC Prevention Epicenters Program: Fecal microbiota dynamics during *Klebsiella pneumoniae* carbapenemase (KPC) acquisition in Long-Term Acute Care Hospital (LTACH) patients, IDWeek, New Orleans, LA, 2016.
67. Bassis CM, Seekatz AM, Fogg L, Lolans K, Moore NM, Okamoto K, Rhee Y, Bardowski L, Bell P, Salazar EI, Dangana T, Sidimirova G, Weinstein RA, Lin MY, Young VB, Hayden MK for the CDC Prevention Epicenters Program: Gut microbiota and clinical predictors of carbapenem-resistant Enterobacteriaceae (CRE) carriage among patients at the time of admission to a Long-Term Acute Care Hospital (LTACH), IDWeek, New Orleans, LA, 2016.
68. Libertucci J, Rao K, Weiner S, Penkevich A, Standke A, **Young VB**: *Clostridium difficile* is detectable in formed stool specimens submitted for clinical testing, Clostpath 10, Ann Arbor, MI, 2017.
69. Seekatz AM, Theriot CM, Rao K, **Young VB**: Individualized Recovery of the Microbiota and Microbial Metabolites Over Time Following Fecal Microbiota Transplantation in Patients with Recurrent *Clostridium difficile* Infection, Clostpath 10, Ann Arbor, MI, 2017.
70. Wolfrum E, Seekatz AM, de Wald C, Rao K, **Young VB**: The presence of multiple *C. difficile* strains during recurrent infection, Clostpath 10, Ann Arbor, MI, 2017.
71. Spohn SN, Leslie JL, Lacy DB, **Young, VB**: The role of the CROP region in toxins of *Clostridium difficile* in Human Intestinal Organoids, Clostpath 10, Ann Arbor, MI, 2017.
72. Dieterle MG, Vendrov K, Perlman N, **Young VB**: Differential Inflammatory Responses in the Setting of Mild and Sever Experimental *Clostridium difficile* Infection in Mice, IDSA/NIAID Infectious Diseases Research Careers Meeting, Bethesda, Maryland, 2017.
73. Seekatz AM, Bassis CM, Lolans K, Yelin RD, Moore NM, Okamoto K, Rhee Y, Bardowski L, Bell P, Dangana T, Sidimirova G, Weinstein RA, Fogg L, Lin MY, **Young VB**, Hayden MK and for the CDC Prevention Epicenter Program: Longitudinal comparison of the microbiota during *Klebsiella pneumoniae* carbapenemase-producing *Klebsiella pneumoniae* (KPC-Kp) acquisition in Long-Term Acute Care Hospital (LTACH) patients, IDWeek, San Diego, CA, 2017.
74. Michael Dieterle, Lisa Close, Ingrid Bergin, Kimberly Vendrov, Naomi Perlman, Evan Czyzycki, Jenna Weins and **Vincent Young**: Systems Analysis of *Clostridium difficile* infection(CDI)in mice: Correlations between serum cytokines, systemic signs of disease and intestinal tissue damage, AMR Conference 2018, Washington, DC, 2018.

75. Seekatz AM, Weiner S, Bassis CM, O'Donohue L, Penkevich A, **Young VB**, and Rao K: Longitudinal impact of prophylactic antibiotic use on the gut microbiota and antimicrobial resistance genes, ASM Microbe, Atlanta, GA, 2018.
76. Libertucci J, Mau T, Vendrov K, O'Brien M, Snitkin ES, Yung R, **Young VB**: Perinatal diet intervention and susceptibility to *Clostridium difficile* infection in F1 mice, Anaerobe 2018, Las Vegas, NV, 2018.
77. Schnizlein MK, Koenigsnecht MJ, Baker JR, Frances AF, Hasler WL, Sun D, **Young VB**: Analysis of *Clostridium Difficile* Spore Germination in Fluid from the Small Intestinal Tract of Healthy Adults, Anaerobe, Las Vegas, NV, 2018.
78. Dieterle MG, Close LA, Bergin I, Vendrov K, Perlman N, Czyzycki E, Weins J, **Young VB**: Characterizing the Relationship Between Disease Severity and the Immune Response in Acute Gastrointestinal *Clostridium difficile* Infection (CDI) in Young and Aged Mice, AMR Annual Meeting, 2018.
79. Putler RKB, Weiner S, Penkevich A, Standke A, **Young VB**, Rao K: Circulating Inflammatory Mediators in the Setting of Severe *Clostridium difficile* Infection, Congress of the Anaerobe Society of the Americas, Las Vegas, NV, 2018.
80. Putler RKB, Weiner S, Penkevich A, Standke A, **Young VB**, Rao K: Circulating Inflammatory Mediators in the Setting of Severe *Clostridium difficile* Infection, Internal Medicine Research Symposium, Ann Arbor, MI, 2018.
81. Schnizlein MK, Koenigsnecht MJ, Baker JR, Frances AF, Hasler WL, Sun D, **Young VB**: Analysis of *Clostridium difficile* spore germination in fluid from the small intestinal tract of healthy adults, Madison Microbiome Meeting, Madison, WI, 2018.
82. Libertucci J, Mau T, Vendrov K, O'Brien M, Snitkin ES, Yung R, **Young VB**: Perinatal diet intervention and susceptibility to *Clostridium difficile* infection in F1 mice, Madison Microbiome Meeting, Madison, WI, 2018.
83. Hill DR, Huang S, Abuaita B, Spohn S, Yadagiri VK, Spence JR, **Young VB**: Heterogeneous transcriptional and functional responses to bacterial colonization in human intestinal organoid tissue, NAMSED, Houston, TX, 2018.
84. Cieza RJ, Hill DR, Yadagiri VK, **Young VB**: Identification of *Escherichia coli* ECOR2 fitness genes during human intestinal organoid (HIO) colonization, NAMSED, Houston, TX, 2018.
85. Putler RKB, Weiner S, Penkevich A, Standke A, **Young VB**, Rao K: Analysis of EHR Data and Circulating Inflammatory Mediators: Association with Severe *Clostridium difficile* Infection, UseR! 2018 - The R Users Conference, Brisbane, AU, 2018.
86. Bassis C, Seekatz A, Dangana TE, Shimasaki T, Yelin RD, Schoeny M, Rhee Y, Ariston M, Lolans K, Cisneros EC, Aboushaala K, Thabit L, Murray J, Sheng J, Ollison S, Bell PB, Fogg L, Weinstein RA, Lin MY, **Young VB**, Hayden MK: Gut Microbiota Differences at the Time of Medical Intensive Care Unit (MICU) Admission Are Associated with Acquisition of Multidrug-Resistant Organisms (MDROs) among Patients Not Already Colonized with an MDRO, ID Week, Washington, DC, 2019.
87. **Young VB**: Shedding of Viable *Clostridioides difficile* in Patients Admitted to a Medical Intensive Care Unit, ID Week, Washington, DC, 2019.
88. Dieterle M, **Young VB**: Validation of Systemic Inflammatory Mediators as Biomarkers for Severity and Adverse Outcomes in *Clostridium difficile* Infection, ID Week, Washington, DC, 2019.
89. Bassis CM, Seekatz AM, Dangana T, Shimasaki T, Yelin RD, Schoeny M, Rhee Y, Ariston M, Lolans K, Cornejo-Cisneros E, Aboushaala KA, Tabith L, Murray J, Sheng J, Ollison S, Bell PB, Fogg L, Weinstein RA, Lin MY, **Young VB** and Hayden MK: Gut Microbiota Differences at the Time of Medical Intensive Care Unit (MICU) Admission Are Associated with Acquisition of Multidrug-Resistant Organisms (MDROs) among Patients Not Already Colonized with an MDRO, IDWeek, Washington, DC, 2019.
90. M. G. Dieterle, L. A. Close, E. Czyzycki, N. Perlman, L. Jhansi, M. Fiebig I. Bergin, K. Vendrov, A. Penkevich, K. Rao, J. Weins and **V. Young**: Aging impacts colonization, immune response, and disease severity to *Clostridium difficile* infection in mice, Pittsburgh Rust Belt Microbiome (RBM) Conference, Pittsburgh, PA, 2019.
91. Abernathy Close L, Dieterle MG, **Young VB**: Altered Intestinal Microbiome Induced By Inflammatory Bowel Disease Is Sufficient To Render Mice Susceptible To *Clostridioides Difficile* Colonization, Pittsburgh Rustbelt Microbiome Conference, Pittsburgh, PA, 2019.
92. Bassis CM, Bullock KA, Sack DE, Saund K, Pirani A, Snitkin ES, Alaniz VI, Quint EH, **Young VB**, Bell JD: Investigating human vaginal microbiota vertical transmission in mother/daughter pairs, Rust Belt Microbiome Conference, Pittsburgh, PA, 2019.

93. Sansom SE, Lin MY, Schoeny M, Bassis CM, **Young VB**, Fukuda C, Shimasaki T, Dangana T, Moore N, Yelin RD, Liu S, Rhee Y, Tabith L, Sheng J, Cisneros EC, Murray J, Chang K, Lolans K, Ariston M, Rotunno W, Ramos H, Li H, Aboushaala K, Iwai N and Hayden MK for the CDC Prevention Epicenters Program: Understanding Intermittent Detection of Multidrug-Resistant Organisms (MDROs) in Rectally Colonized Patients, 2020 IDWeek (held virtually), 2020.
94. Lisa Abernathy-Close, Madeline R. Barron, James M. George, Michael G. Dieterle, Kimberly C. Vendrov, Ingrid L. Bergin, and **Vincent B. Young**: Intestinal inflammation and altered gut microbiota associated with inflammatory bowel disease renders mice susceptible to *Clostridioides difficile* colonization and infection, 2nd Cold Spring Harbor Laboratory Microbiome Meeting, Virtual Meeting, 2020.
95. Matthew K. Schnizlein*, Alexandra K. Standke, Summer J. Edwards, **Vincent B. Young**: Microbial bile salt metabolism correlates with resistance to *Clostridioides difficile* colonization in an in vitro gut model, 2nd Cold Spring Harbor Laboratory Microbiome Meeting, Virtual Meeting, 2020.
96. Madeline R. Barron¹, Roberto J. Cieza², David R. Hill², Veda K. Yadagiri², Sha Huang², Jason R. Spence^{2,3,4}, **Vincent B. Young^{1,2}** ¹Department of Microbiology & Immunology, ²Department of Internal Medicine, and ³Department of Cell & Molecular Biology, ⁴Department of Biomedical Engineering: The lumen of human intestinal organoids poses greater stress to bacteria than the germ-free mouse intestine: *Escherichia coli* deficient in RpoS as a colonization probe, 2nd Cold Spring Harbor Laboratory Microbiome Meeting, Cold Spring Harbor, NY held virtually, 2020.
97. M. G. Dieterle, L. A. Close, E. Czyzycki, N. Perlman, L. Jhansi, M. Fiebig I. Bergin, K. Vendrov, A. Penkevich, K. Rao, J. Weins and **V. Young**.: Impacts of Age and Sex on Intestinal Microbial Community Structure Before and During *Clostridioides difficile* Infection, Microbiome Seminar Series, Ann Arbor, MI, 2020.
98. Abernathy-Close L, Dieterle MG, Barron MR, Bergin IL, **Young VB**: *Clostridioides difficile* infection during comorbid inflammatory bowel disease, Poster Presentation at Society for Mucosal Immunology Michigan Chapter Symposium, Ann Arbor, MI, 2020.