

## Microbiome Information for: COVID-19

### For non-prescribing Medical professionals Review

The suggestions below are based on an Expert System (Artificial Intelligence) modelled after the MYCIN Expert System produced at Stanford University School of Medicine in 1972. The system uses over 1,800,000 facts with backward chaining to sources of information. The typical sources are studies published on the US National Library of Medicine.

Many recent studies has found that symptoms and symptom severity has strong associations to the microbiome for many conditions. Correcting the microbiome dysfunction is beleived to reduce the severity of symptoms. In some cases, this correction may cause symptoms to disappear.

These are a *a priori suggestions* that are predicted to independently reduce microbiome dysfunction. Suggestions should *only be done after a review* by a medical professional factoring in patient's conditions, allergies and other issues.

### This report may be freely shared by a patient to their medical professionals

---

Best practise for making microbiome adjustments is to obtain the individuals microbiome. The following are the best microbiome to use with this expert system model. The suggestions below are intended as temporary suggestions until a test result in received.

In the USA

Ombre (<https://www.ombrelab.com/>)

Thome (<https://www.thome.com/products/dp/gut-health-test>)

Worldwide: BiomeSight (<https://biomesight.com>) - Discount Code 'MICRO'

### Analysis Provided by Microbiome Prescription

A Microbiome Analysis Company

892 Lake Samish Rd, Bellingham WA 98229

Email: [Research@MicrobiomePrescription.com](mailto:Research@MicrobiomePrescription.com)

## Bacteria being reported because of atypical values.

These bacteria were reported atypical in studies of COVID-19

*Nota Bena:* Many studies are done with a small sample size or mixtures of condition subsets which can greatly diminish the ability to detect bacteria shifts.

Bacteria Name	Rank	Shift	Taxonomy ID	Bacteria Name	Rank	Shift	Taxonomy ID
Actinomycetia	class	High	1760	Veillonella	genus	High	29465
Agaricomycetes	class	High	155619	Weissella	genus	High	46255
Bacteroidia	class	High	200643	Spirochaetales	order	Low	136
Epsilonproteobacteria	class	High	29547	[Clostridium] colinum	species	Low	36835
Fusobacteriia	class	Low	203490	[Clostridium] innocuum	species	High	1522
Aerococcaceae	family	High	186827	[Clostridium] leptum	species	Low	1535
Aeromonadaceae	family	Low	84642	[Clostridium] pilliforme	species	High	1524
Carnobacteriaceae	family	Low	186828	[Eubacterium] rectale	species	Low	39491
Coriobacteriaceae	family	Low	84107	Acinetobacter bereziniae	species	High	106648
Corynebacteriaceae	family	High	1653	Actinomyces viscosus	species	High	1656
Demabacteraceae	family	High	85020	Akkermansia muciniphila	species	Low	239935
Enterobacteriaceae	family	High	543	Alistipes finegoldii	species	High	214856
Moraxellaceae	family	Low	468	Alistipes indistinctus	species	Low	626932
Mycoplasmataceae	family	Low	2092	Alistipes putredinis	species	Low	28117
Nitrospiraceae	family	Low	189779	Alistipes shahii	species	Low	328814
Peptostreptococcaceae	family	High	186804	Alloprevotella tanneriae	species	High	76122
Propionibacteriaceae	family	Low	31957	Anaerobutyricum hallii	species	Low	39488
Ruminococcaceae	family	Low	541000	Aspergillus flavus	species	High	5059
Staphylococcaceae	family	High	90964	ATCC 22019	species	Low	5480
Vibrionaceae	family	High	641	Bacteroides caccae	species	Low	47678
Actinomyces	genus	High	1654	Bacteroides cellulosilyticus	species	Low	246787
Agathobacter	genus	Low	1766253	Bacteroides eggerthii	species	Low	28111
Akkermansia	genus	Low	239934	Bacteroides graminisolvans	species	High	477666
Alistipes	genus	Low	239759	Bacteroides luti	species	Low	1297750
Anaerococcus	genus	Low	165779	Bacteroides nordii	species	High	291645
Anaerostipes	genus	Low	207244	Bacteroides salyersiae	species	Low	291644
Bacteroides	genus	High	816	Bacteroides stercoris	species	High	46506
Bifidobacterium	genus	Low	1678	Bacteroides thetaiotaomicron	species	Low	818
Blautia	genus	Low	572511	Bacteroides uniformis	species	High	820
Burkholderia	genus	High	32008	Bifidobacterium bifidum	species	Low	1681
Butyricicoccus	genus	Low	580596	Bifidobacterium longum	species	High	216816
Butyrivibrio	genus	Low	830	Blastocystis hominis	species	Low	12968
Campylobacter	genus	High	194	Blautia hominis	species	Low	2025493
Candida	genus	High	5475	Blautia obeum	species	Low	40520
Candida	genus	High	1535326	Candida albicans	species	High	5476
Clostridium	genus	High	1485	Clostridium butyricum	species	Low	1492
Collinsella	genus	Low	102106	Coprobacter fastidiosus	species	Low	1099853
Coprobacillus	genus	High	100883	Dorea formicigenerans	species	Low	39486
Coprobacter	genus	High	1348911	Dorea longicatena	species	Low	88431
Coprococcus	genus	Low	33042	Eggerthella lenta	species	High	84112
Corynebacterium	genus	High	1716	Enterobacter cloacae	species	Low	550

<b>Bacteria Name</b>	<b>Rank</b>	<b>Shift</b>	<b>Taxonomy ID</b>	<b>Bacteria Name</b>	<b>Rank</b>	<b>Shift</b>	<b>Taxonomy ID</b>
Dialister	genus	High	39948	Enterocloster citroniae	species	High	358743
Dorea	genus	Low	189330	Enterocloster clostridioformis	species	Low	1531
Eggerthella	genus	High	84111	Enterococcus faecium	species	Low	1352
Enterococcus	genus	High	1350	Erysipelatoclostridium ramosum	species	High	1547
Escherichia	genus	High	561	Eubacterium limosum	species	Low	1736
Eubacterium	genus	Low	1730	Eubacterium ventriosum	species	Low	39496
Faecalibacterium	genus	High	216851	Faecalibacterium prausnitzii	species	Low	853
Finegoldia	genus	High	150022	Gemmiger fornicilis	species	Low	745368
Fusicatenibacter	genus	Low	1407607	Hungatella hathewayi	species	High	154046
Fusobacterium	genus	High	848	Lachnospira eligens	species	Low	39485
Herbaspirillum	genus	High	963	Lawsonibacter asaccharolyticus	species	Low	2108523
Neisseria	genus	High	482	Odoribacter splanchnicus	species	Low	28118
Parabacteroides	genus	High	375288	Parasutterella excrementihominis	species	Low	487175
Parasutterella	genus	High	577310	Phocaeicola coprophilus	species	High	387090
Porphyromonas	genus	Low	836	Phocaeicola dorei	species	Low	357276
Pseudomonas	genus	High	286	Phocaeicola massiliensis	species	Low	204516
Romboutsia	genus	Low	1501226	Phocaeicola plebeius	species	High	310297
Roseburia	genus	Low	841	Pseudomonas veronii	species	High	76761
Rothia	genus	High	32207	Roseburia intestinalis	species	Low	166486
Rothia	genus	High	508215	Ruminococcus albus	species	High	1264
Ruthenibacterium	genus	High	1905344	Ruminococcus bromii	species	Low	40518
Shigella	genus	High	620	Staphylococcus epidermidis	species	High	1282
Streptococcus	genus	High	1301	Tyzzereella nexilis	species	Low	29361
				Veillonella dispar	species	Low	39778

## Substance to Consider Adding or Taking

These are the most significant substances that are likely to improve the microbiome dysfunction. Dosages are based on the dosages used in clinical studies. For more information see: <https://microbiomeprescription.com/library/dosages>. These are provided as examples only

Colors indicates the type of substance: i.e. probiotics and prebiotics, herbs and spices, etc. There is no further meaning to them.

Arbutin (polyphenol) 100 mg/day

Bile Acid Sequestrant

Caffeine

**candida albicans (prescription)**

carbohydrates

dairy

diosmin,(polyphenol) 1500 mg/day

fluorine

glycyrrhizic acid (licorice) 32 gram/day

**gynostemma pentaphyllum (Jiaogulan)**

Hesperidin (polyphenol) 1.5 gram/day

linseed(flaxseed) 30 mg/day

luteolin (flavonoid) 400 mg/day

**mannooligosaccharide (prebiotic)** 8 gram/day

**N-Acetyl Cysteine (NAC),** 2400 mg/day

quercetin, resveratrol

**retinoic acid,(Vitamin A derivative)**

smoking

sucralose 340 mg/day

Tributyrin

**Vitamin B1,thiamine hydrochloride** 1.8 gram/day

**vitamin B3,niacin** 3000 mg/day

**Vitamin B6,pyridoxine hydrochloride** 200 mg/day

**vitamin B7, biotin** 300 mg/day

**Vitamin B9,folic acid** 5 mg/day

## Substance to Consider Reducing or Eliminating

These are the most significant substances have been identified as probably contributing to the microbiome dysfunction.

In some cases blood work may show low levels of some vitamins, etc. listed below. This may be due to *greedy* bacteria reported at a high level above. Viewing bacteria data on the Kyoto Encyclopedia of Genes and Genomes (<https://www.kegg.jp/>) may provide better insight on the course of action to take.

apple	lactobacillus paracasei (probiotics)
arabinogalactan (prebiotic)	lactobacillus plantarum (probiotics)
bacillus subtilis (probiotics)	oregano (origanum vulgare, oil)
Cacao	resistant starch
cinnamon (oil, spice)	rosmarinus officinalis, rosemary
fructo-oligosaccharides (prebiotic)	soy
Human milk oligosaccharides (prebiotic, Holigos, Stachyose)	thyme (thymol, thyme oil)
inulin (prebiotic)	triphala
lactobacillus casei (probiotics)	wheat
	wheat bran

## Sample of Literature Used

The following are the most significant of the studies used to generate these suggestions.

[Gut microbiota in COVID-19: new insights from inside.](#)

**Gut microbes** , Volume: 15 Issue: 1 2023 Jan-Dec

Authors Zhou B,Pang X,Wu J,Liu T,Wang B,Cao H

[Gut microbiota composition in COVID-19 hospitalized patients with mild or severe symptoms.](#)

**Frontiers in microbiology** , Volume: 13 2022

Authors Mazzarelli A,Giancola ML,Fontana A,Piselli P,Binda E,Trivieri N,Mencarelli G,Marchioni L,Vulcano A,De Giuli C,Panebianco C,Villani A,Copetti M,Perri F,Fontana C,Nicastri E,Pazienza V

[The Gut Microbiome of Children during the COVID-19 Pandemic.](#)

**Microorganisms** , Volume: 10 Issue: 12 2022 Dec 13

Authors Bacorn M,Romero-Soto HN,Levy S,Chen Q,Hourigan SK

[Gut Microbial Disruption in Critically Ill Patients with COVID-19-Associated Pulmonary Aspergillosis.](#)

**Journal of fungi (Basel, Switzerland)** , Volume: 8 Issue: 12 2022 Nov 30

Authors Maurer HC,Schult D,Koyumdzhieva P,Reitmeier S,Middelhoff M,Rasch S,List M,Janssen KP,Steiger K,Protzer U,Schmid RM,Neuhaus K,Haller D,Quante M,Lahmer T

[Characteristic alterations of gut microbiota in uncontrolled gout.](#)

**Journal of microbiology (Seoul, Korea)** , Volume: 60 Issue: 12 2022 Dec

Authors Ul-Haq A, Lee KA, Seo H, Kim S, Jo S, Ko KM, Moon SJ, Kim YS, Choi JR, Song HY, Kim HS

[Microbiota and COVID-19: Long-term and complex influencing factors.](#)

**Frontiers in microbiology** , Volume: 13 2022

Authors Gang J,Wang H,Xue X,Zhang S

[The Relationship Between Pediatric Gut Microbiota and SARS-CoV-2 Infection.](#)

**Frontiers in cellular and infection microbiology** , Volume: 12 2022

Authors Romani L,Del Chierico F,Macari G,Pane S,Ristori MV,Guarrasi V,Gardini S,Pascucci GR,Cotugno N,Perno CF,Rossi P,Villani A,Bernardi S,Campana A,Palma P,Putignani L,CACTUS Study Team

[Intestinal microbiota composition of children with infection with severe acute respiratory syndrome coronavirus 2 \(SARS-CoV-2\) and multisystem inflammatory syndrome \(MIS-C\).](#)

**European journal of pediatrics** , Volume: 181 Issue: 8 2022 Aug

Authors Suskun C,Kilic O,Yilmaz Ciftdogan D,Guven S,Karbuş A,Ozkaya Parlakay A,Kara Y,Kacmaz E,Sahin A,Boga A,Kizmaz Isancli D,Gulhan B,Kanik-Yukseş S,Kiral E,Bozan G,Arslanoglu MO,Kizil MC,Dinleyici M,Us T,Varis A,Kaya M,Vandenplas Y,Dinleyici EC

[Alterations in microbiota of patients with COVID-19: potential mechanisms and therapeutic interventions.](#)

**Signal transduction and targeted therapy** , Volume: 7 Issue: 1 2022 Apr 29

Authors Wang B,Zhang L,Wang Y,Dai T,Qin Z,Zhou F,Zhang L

[Gut Microbiota Disruption in COVID-19 or Post-COVID Illness Association with severity biomarkers: A Possible Role of Pre / Pro-biotics in manipulating microflora.](#)

**Chemico-biological interactions** , Volume: 358 2022 May 1

Authors Alharbi KS,Singh Y,Hassan Almalki W,Rawat S,Afzal O,Alfawaz Altamimi AS,Kazmi I,Al-Abbasi FA,Alzarea SI,Singh SK,Bhatt S,Chellappan DK,Dua K,Gupta G

[The significance of the gut microbiome in post-COVID-19 gastrointestinal symptoms.](#)

**Clinical medicine (London, England)** , Volume: 22 Issue: 2 2022 Mar

Authors Lampejo T

[Gut microbiota changes are detected in asymptomatic very young children with SARS-CoV-2 infection.](#)

**Gut** , Volume: 71 Issue: 11 2022 Nov

Authors Nashed L,Mani J,Hazrati S,Stern DB,Subramanian P,Mattei L,Bittinger K,Hu W,Levy S,Maxwell GL,Hourigan SK

[Gut Microbiota Interplay With COVID-19 Reveals Links to Host Lipid Metabolism Among Middle Eastern Populations.](#)

**Frontiers in microbiology** , Volume: 12 2021

Authors Al Bataineh MT,Henschel A,Mousa M,Daou M,Waasia F,Kannout H,Khalili M,Kayasseh MA,Alkhajeh A,Uddin M,Alkaabi N,Tay GK,Feng SF,Yousef AF,Alsafar HS

[Gut Microbiome Alterations in COVID-19.](#)

**Genomics, proteomics & bioinformatics** , 2021 Sep 21

Authors Zuo T,Wu X,Wen W,Lan P

[The gut microbiome of COVID-19 recovered patients returns to uninfected status in a minority-dominated United States cohort.](#)

**Gut microbes** , Volume: 13 Issue: 1 2021 Jan-Dec

Authors Newsome RC,Gauthier J,Hernandez MC,Abraham GE,Robinson TO,Williams HB,Sloan M,Owings A,Laird H,Christian T,Pride Y,Wilson KJ,Hasan M,Parker A,Senitko M,Glover SC,Gharaibeh RZ,Jobin C

[Temporal association between human upper respiratory and gut bacterial microbiomes during the course of COVID-19 in adults.](#)

**Communications biology** , Volume: 4 Issue: 1 2021 Feb 18

Authors Xu R,Lu R,Zhang T,Wu Q,Cai W,Han X,Wan Z,Jin X,Zhang Z,Zhang C

[16S rRNA gene sequencing of rectal swab in patients affected by COVID-19.](#)

**PloS one** , Volume: 16 Issue: 2 2021

Authors Mazzarelli A,Giancola ML,Farina A,Marchioni L,Rueca M,Gruber CEM,Bartolini B,Ascoli Bartoli T,Maffongelli G,Capobianchi MR,Ippolito G,Di Caro A,Nicastri E,Pazienza V,INMII COVID-19 study group.

[Challenges in the Management of SARS-CoV2 Infection: The Role of Oral Bacteriotherapy as Complementary Therapeutic Strategy to Avoid the Progression of COVID-19.](#)

**Frontiers in medicine** , Volume: 7 2020

Authors d`Ettorre G,Ceccarelli G,Marazzato M,Campagna G,Pinacchio C,Alessandri F,Ruberto F,Rossi G,Celani L,Scagnolari C,Mastropietro C,Trinchieri V,Recchia GE,Mauro V,Antonelli G,Pugliese F,Mastroianni CM

[Alterations in Fecal Fungal Microbiome of Patients With COVID-19 During Time of Hospitalization until Discharge.](#)

**Gastroenterology** , Volume: 159 Issue: 4 2020 Oct

Authors Zuo T,Zhan H,Zhang F,Liu Q,Tso EYK,Lui GCY,Chen N,Li A,Lu W,Chan FKL,Chan PKS,Ng SC

[Alterations of the Gut Microbiota in Patients with COVID-19 or H1N1 Influenza.](#)

**Clinical infectious diseases : an official publication of the Infectious Diseases Society of America** , 2020 Jun 4

Authors Gu S,Chen Y,Wu Z,Chen Y,Gao H,Lv L,Guo F,Zhang X,Luo R,Huang C,Lu H,Zheng B,Zhang J,Yan R,Zhang H,Jiang H,Xu Q,Guo J,Gong Y,Tang L,Li L

[Alterations in Gut Microbiota of Patients With COVID-19 During Time of Hospitalization.](#)

**Gastroenterology** , Volume: 159 Issue: 3 2020 Sep

Authors Zuo T,Zhang F,Lui GCY,Yeoh YK,Li AYL,Zhan H,Wan Y,Chung ACK,Cheung CP,Chen N,Lai CKC,Chen Z,Tso EYK,Fung KSC,Chan V,Ling L,Joynt G,Hui DSC,Chan FKL,Chan PKS,Ng SC

[The Synergism of Human Lactobacillaceae and Inulin Decrease Hyperglycemia via Regulating the Composition of Gut Microbiota and Metabolic Profiles in db/db Mice.](#)

**Journal of microbiology and biotechnology** , Volume: 33 Issue: 12 2023 Aug 21

Authors Li P,Tong T,Wu Y,Zhou X,Zhang M,Liu J,She Y,Li Z,Li A

[Positive efficacy of Lactiplantibacillus plantarum MH-301 as a postoperative adjunct to endoscopic sclerotherapy for internal hemorrhoids: a randomized, double-blind, placebo-controlled trial.](#)

**Food & function** , 2023 Sep 1

Authors Zhang K,Liu H,Liu P,Feng Q,Gan L,Yao L,Huang G,Fang Z,Chen T,Fang N

[Effect of an Enteroprotective Complementary Feed on Faecal Markers of Inflammation and Intestinal Microbiota Composition in Weaning Puppies.](#)

**Veterinary sciences** , Volume: 10 Issue: 7 2023 Jul 3

Authors Meineri G,Cocolin L,Morelli G,Schievano C,Atuahene D,Ferrocino I

[Bile Acids and Short-Chain Fatty Acids Are Modulated after Onion and Apple Consumption in Obese Zucker Rats.](#)

**Nutrients** , Volume: 15 Issue: 13 2023 Jul 5

Authors Balderas C,de Ancos B,Sánchez-Moreno C

[Targeted modification of gut microbiota and related metabolites via dietary fiber.](#)

**Carbohydrate polymers** , Volume: 316 2023 Sep 15

Authors Nie Q,Sun Y,Li M,Zuo S,Chen C,Lin Q,Nie S

[The regulatory effects of specific polyphenols on Akkermansia are dependent on uridine.](#)

**Food chemistry** , Volume: 410 2023 Jun 1

Authors Gao X,Yue C,Tian R,Yu L,Tian F,Zhao J,Chen W,Zhai Q

[Effects of Dietary Oregano Essential Oil on Cecal Microorganisms and Muscle Fatty Acids of Luhua Chickens.](#)

**Animals : an open access journal from MDPI** , Volume: 12 Issue: 22 2022 Nov 20

Authors Wu T,Yang F,Jiao T,Zhao S

[Lactobacillus rhamnosus GG protects against atherosclerosis by improving ketone body synthesis.](#)

**Applied microbiology and biotechnology** , Volume: 106 Issue: 24 2022 Dec

Authors Zhai T,Ren W,Wang P,Zheng L

[Effects of Bile Acid Modulation by Dietary Fat, Cholecystectomy, and Bile Acid Sequestrant on Energy, Glucose, and Lipid Metabolism and Gut Microbiota in Mice.](#)

**International journal of molecular sciences** , Volume: 23 Issue: 11 2022 May 25

Authors Park S,Zhang T,Yue Y,Wu X

[Licorice extract ameliorates hyperglycemia through reshaping gut microbiota structure and inhibiting TLR4/NF- \$\kappa\$ B signaling](#)

pathway in type 2 diabetic mice.

**Food research international (Ottawa, Ont.) , Volume: 153 2022 Mar**

Authors Zhang Y,Xu Y,Zhang L,Chen Y,Wu T,Liu R,Sui W,Zhu Q,Zhang M

Substitution of Refined Conventional Wheat Flour with Wheat High in Resistant Starch Modulates the Intestinal Microbiota and Fecal Metabolites in Healthy Adults: A Randomized, Controlled Trial.

**The Journal of nutrition , 2022 Jan 31**

Authors Gondalia SV,Wymond B,Benassi-Evans B,Berbezy P,Bird AR,Belobrajdic DP

Effects of Dietary Supplementation With *Bacillus subtilis*, as an Alternative to Antibiotics, on Growth Performance, Serum Immunity, and Intestinal Health in Broiler Chickens.

**Frontiers in nutrition , Volume: 8 2021**

Authors Qiu K,Li CL,Wang J,Qi GH,Gao J,Zhang HJ,Wu SG

Active Smoking Induces Aberrations in Digestive Tract Microbiota of Rats.

**Frontiers in cellular and infection microbiology , Volume: 11 2021**

Authors Wang X,Ye P,Fang L,Ge S,Huang F,Polverini PJ,Heng W,Zheng L,Hu Q,Yan F,Wang W

The relationship between human milk, a functional nutrient, and microbiota.

**Critical reviews in food science and nutrition , 2021 Dec 6**

Authors Sakarya E,Sanlier NT,Sanlier N

Fructooligosaccharides Increase in Plasma Concentration of (-)-Epigallocatechin-3-Gallate in Rats.

**Journal of agricultural and food chemistry , Volume: 69 Issue: 49 2021 Dec 15**

Authors Unno T,Araki Y,Inagaki S,Kobayashi M,Ichitani M,Takahara T,Kinugasa H

*Bacillus subtilis* Attenuates Hepatic and Intestinal Injuries and Modulates Gut Microbiota and Gene Expression Profiles in Mice Infected with *Schistosoma japonicum*.

**Frontiers in cell and developmental biology , Volume: 9 2021**

Authors Lin D,Song Q,Zhang Y,Liu J,Chen F,Du S,Xiang S,Wang L,Wu X,Sun X

Oregano Essential Oils Promote Rumen Digestive Ability by Modulating Epithelial Development and Microbiota Composition in Beef Cattle.

**Frontiers in nutrition , Volume: 8 2021**

Authors Zhang R,Wu J,Lei Y,Bai Y,Jia L,Li Z,Liu T,Xu Y,Sun J,Wang Y,Zhang K,Lei Z

Metagenomic Analysis of Intestinal Microbiota in Flavored Rats.

**Biological trace element research , Volume: 200 Issue: 7 2022 Jul**

Authors Komuroglu AU,Seckin H,Ertas M,Meydan I

Cinnamaldehyde Promotes the Intestinal Barrier Functions and Reshapes Gut Microbiome in Early Weaned Rats.

**Frontiers in nutrition , Volume: 8 2021**

Authors Qi L,Mao H,Lu X,Shi T,Wang J

Effects of dietary tributyrin and physterol ester supplementation on growth performance, intestinal morphology, microbiota and metabolites in weaned piglets.

**Journal of applied microbiology , 2021 Oct 27**

Authors Chen G,Zhuo R,Ding H,Yang K,Xue J,Zhang S,Chen L,Yin Y,Fang R

*Bifidobacterium* catabolism of human milk oligosaccharides overrides endogenous competitive exclusion driving colonization and protection.

**Gut microbes , Volume: 13 Issue: 1 2021 Jan-Dec**

Authors Heiss BE,Ehrlich AM,Maldonado-Gomez MX,Taft DH,Larke JA,Goodson ML,Slupsky CM,Tancredi DJ,Raybould HE,Mills DA

Antifungal effects of tulsi, garlic, cinnamon and lemongrass in powder and oil form on *Candida albicans*: An in vitro study.

**Journal of oral and maxillofacial pathology : JOMFP , Volume: 25 Issue: 2 2021 May-Aug**

Authors Prajapati M,Shah M,Ranginwala A,Agrawal P,Acharya D,Thakkar S

Effects of fermented wheat bran and yeast culture on growth performance, immunity and intestinal microflora in growing-finishing pigs.

**Journal of animal science , 2021 Oct 23**

Authors He W,Gao Y,Guo Z,Yang Z,Wang X,Liu H,Sun H,Shi B

Supplementation with *Lactiplantibacillus plantarum* IMC 510 Modifies Microbiota Composition and Prevents Body Weight Gain Induced by Cafeteria Diet in Rats.

**International journal of molecular sciences , Volume: 22 Issue: 20 2021 Oct 16**

Authors Micioni Di Bonaventura MV,Coman MM,Tomassoni D,Micioni Di Bonaventura E,Botticelli L,Gabrielli MG,Rossolini GM,Di Pilato V,Cecchini C,Amedei A,Silvi S,Verdenelli MC,Cifani C

Treatment with a spore-based probiotic containing five strains of *Bacillus* induced changes in the metabolic activity and community composition of the gut microbiota in a SHIME® model of the human gastrointestinal system.

**Food research international (Ottawa, Ont.) , Volume: 149 2021 Nov**

Authors Marzorati M, Van den Abbeele P,Bubeck S,Bayne T,Krishnan K,Young A



*Bacillus pumilus* and *Bacillus subtilis* Promote Early Maturation of Cecal Microbiota in Broiler Chickens.

**Microorganisms** , Volume: 9 Issue: 9 2021 Sep 7

Authors Bilal M,Achard C,Barbe F,Chevaux E,Ronholm J,Zhao X

The Prebiotic Potential of Inulin-type Fructans: A Systematic Review.

**Advances in nutrition (Bethesda, Md.)** , 2021 Sep 23

Authors Hughes RL,Alvarado DA,Swanson KS,Holscher HD

*Lactocaseibacillus paracasei* NK112 mitigates *Escherichia coli*-induced depression and cognitive impairment in mice by regulating IL-6 expression and gut microbiota.

**Beneficial microbes** , 2021 Sep 13

Authors Yun SW,Kim JK,Han MJ,Kim DH

Alterations in microbiota and their metabolites are associated with beneficial effects of bile acid sequestrant on icteric primary biliary Cholangitis.

**Gut microbes** , Volume: 13 Issue: 1 2021 Jan-Dec

Authors Li B,Zhang J,Chen Y,Wang Q,Yan L,Wang R,Wei Y,You Z,Li Y,Miao Q,Xiao X,Lian M,Chen W,Qiu D,Fang J,Gershwin ME,Tang R,Ma X

Prebiotic fructans have greater impact on luminal microbiology and CD3+ T cells in healthy siblings than patients with Crohn`s disease: A pilot study investigating the potential for primary prevention of inflammatory bowel disease.

**Clinical nutrition (Edinburgh, Scotland)** , Volume: 40 Issue: 8 2021 Jun 23

Authors Hedin CR,McCarthy NE,Louis P,Farquharson FM,McCartney S,Stagg AJ,Lindsay JO,Whelan K

Effects of *Bacillus subtilis* and *Bacillus licheniformis* on growth performance, immunity, short chain fatty acid production, antioxidant capacity, and cecal microflora in broilers.

**Poultry science** , Volume: 100 Issue: 9 2021 Jun 26

Authors Xu Y,Yu Y,Shen Y,Li Q,Lan J,Wu Y,Zhang R,Cao G,Yang C

Dietary oregano essential oil supplementation improves intestinal functions and alters gut microbiota in late-phase laying hens.

**Journal of animal science and biotechnology** , Volume: 12 Issue: 1 2021 Jul 6

Authors Feng J,Lu M,Wang J,Zhang H,Qiu K,Qi G,Wu S

Effects of Fermented Milk Containing *Lactocaseibacillus paracasei* Strain Shirota on Constipation in Patients with Depression: A Randomized, Double-Blind, Placebo-Controlled Trial.

**Nutrients** , Volume: 13 Issue: 7 2021 Jun 29

Authors Zhang X,Chen S,Zhang M,Ren F,Ren Y,Li Y,Liu N,Zhang Y,Zhang Q,Wang R

Microbiota and Metabolite Modifications after Dietary Exclusion of Dairy Products and Reduced Consumption of Fermented Food in Young and Older Men.

**Nutrients** , Volume: 13 Issue: 6 2021 Jun 1

Authors Kim J,Burton-Pimentel KJ,Fleuti C,Blaser C,Scherz V,Badertscher R,Marmonier C,Lyon-Belgy N,Caille A,Pidou V,Blot A,Bertelli C,David J,Bütikofer U,Greub G,Dardevet D,Polakof S,Vergères G

Concentrated Raw Fibers Enhance the Fiber-Degrading Capacity of a Synthetic Human Gut Microbiome.

**International journal of molecular sciences** , Volume: 22 Issue: 13 2021 Jun 25

Authors Steimle A,Neumann M,Grant ET,Turner JD,Desai MS

Effect of Dietary Inulin Supplementation on the Gut Microbiota Composition and Derived Metabolites of Individuals Undergoing Hemodialysis: A Pilot Study.

**Journal of renal nutrition : the official journal of the Council on Renal Nutrition of the National Kidney Foundation** , 2021 Jun 11

Authors Biruete A,Cross TL,Allen JM,Kistler BM,de Loo H,Evenepoel P,Fahey GC Jr,Bauer L,Swanson KS,Wilund KR

Modulatory Effects of *Bacillus subtilis* on the Performance, Morphology, Cecal Microbiota and Gut Barrier Function of Laying Hens.

**Animals : an open access journal from MDPI** , Volume: 11 Issue: 6 2021 May 24

Authors Zhang G,Wang H,Zhang J,Tang X,Raheem A,Wang M,Lin W,Liang L,Qi Y,Zhu Y,Jia Y,Cui S,Qin T

Effect of *Lactocaseibacillus paracasei* Strain Shirota on Improvement in Depressive Symptoms, and Its Association with Abundance of Actinobacteria in Gut Microbiota.

**Microorganisms** , Volume: 9 Issue: 5 2021 May 10

Authors Otaka M,Kikuchi-Hayakawa H,Ogura J,Ishikawa H,Yomogida Y,Ota M,Hidese S,Ishida I,Aida M,Matsuda K,Kawai M,Yoshida S,Kunugi H

*Lactobacillus* Sps in Reducing the Risk of Diabetes in High-Fat Diet-Induced Diabetic Mice by Modulating the Gut Microbiome and Inhibiting Key Digestive Enzymes Associated with Diabetes.

**Biology** , Volume: 10 Issue: 4 2021 Apr 20

Authors Gulnaz A,Nadeem J,Han JH,Lew LC,Son JD,Park YH,Rather IA,Hor YY

Implications of Tributyrin on Gut Microbiota Shifts Related to Performances of Weaning Piglets.

**Microorganisms** , Volume: 9 Issue: 3 2021 Mar 12

Authors Miragoli F, Patrone V, Prandini A, Sigolo S, Dell'Anno M, Rossi L, Senizza A, Morelli L, Callegari ML

Cloudy Apple Juice Fermented by *Lactobacillus* Prevents Obesity via Modulating Gut Microbiota and Protecting Intestinal Tract Health.

**Nutrients** , Volume: 13 Issue: 3 2021 Mar 17

Authors Han M, Zhang M, Wang X, Bai X, Yue T, Gao Z

Beverages containing *Lactobacillus paracasei* LC-37 improved functional dyspepsia through regulation of the intestinal microbiota and their metabolites.

**Journal of dairy science** , 2021 Mar 10

Authors Sun E, Zhang X, Zhao Y, Li J, Sun J, Mu Z, Wang R

Potato resistant starch inhibits diet-induced obesity by modifying the composition of intestinal microbiota and their metabolites in obese mice.

**International journal of biological macromolecules** , Volume: 180 2021 Mar 9

Authors Liang D, Zhang L, Chen H, Zhang H, Hu H, Dai X

Impaired Intestinal *Akkermansia muciniphila* and Aryl Hydrocarbon Receptor Ligands Contribute to Nonalcoholic Fatty Liver Disease in Mice.

**mSystems** , Volume: 6 Issue: 1 2021 Feb 23

Authors Shi Z, Lei H, Chen G, Yuan P, Cao Z, Ser HL, Zhu X, Wu F, Liu C, Dong M, Song Y, Guo Y, Chen C, Hu K, Zhu Y, Zeng XA, Zhou J, Lu Y, Patterson AD, Zhang L

Effects of colon-targeted vitamins on the composition and metabolic activity of the human gut microbiome- a pilot study.

**Gut microbes** , Volume: 13 Issue: 1 2021 Jan-Dec

Authors Pham VT, Fehlbauer S, Seifert N, Richard N, Bruins MJ, Sybesma W, Rehman A, Steinert RE

Prevention and Alleviation of Dextran Sulfate Sodium Salt-Induced Inflammatory Bowel Disease in Mice With *Bacillus subtilis*-Fermented Milk via Inhibition of the Inflammatory Responses and Regulation of the Intestinal Flora.

**Frontiers in microbiology** , Volume: 11 2020

Authors Zhang X, Tong Y, Lyu X, Wang J, Wang Y, Yang R

Selective Utilization of the Human Milk Oligosaccharides 2'-Fucosyllactose, 3-Fucosyllactose, and Difucosyllactose by Various Probiotic and Pathogenic Bacteria.

**Journal of agricultural and food chemistry** , Volume: 69 Issue: 1 2021 Jan 13

Authors Salli K, Hirvonen J, Siitonen J, Ahonen I, Angenius H, Maukonen J

Exopolysaccharides from *Lactobacillus plantarum* YW11 improve immune response and ameliorate inflammatory bowel disease symptoms.

**Acta biochimica Polonica** , Volume: 67 Issue: 4 2020 Dec 17

Authors Min Z, Xiaona H, Aziz T, Jian Z, Zhennai Y

Adjunctive treatment with probiotics partially alleviates symptoms and reduces inflammation in patients with irritable bowel syndrome.

**European journal of nutrition** , 2020 Nov 22

Authors Xu H, Ma C, Zhao F, Chen P, Liu Y, Sun Z, Cui L, Kwok LY, Zhang H

Effects of Different Human Milk Oligosaccharides on Growth of *Bifidobacteria* in Monoculture and Co-culture With *Faecalibacterium prausnitzii*.

**Frontiers in microbiology** , Volume: 11 2020

Authors Cheng L, Kiewiet MGB, Logtenberg MJ, Groeneveld A, Nauta A, Schols HA, Walvoort MTC, Harmsen HJM, de Vos P

Effect of Five Commercial Probiotic Formulations on *Candida albicans* Growth: In Vitro Study.

**The Journal of clinical pediatric dentistry** , Volume: 44 Issue: 5 2020 Sep 1

Authors Hernández-Bautista LM, Márquez-Preciado R, Ortiz-Magdaleno M, Pozos-Guillén A, Aranda-Romo S, Sánchez-Vargas LO

Alginate- and Gelatin-Coated Apple Pieces as Carriers for *Bifidobacterium animalis* subsp. *lactis* DSM 10140.

**Frontiers in microbiology** , Volume: 11 2020

Authors Campaniello D, Bevilacqua A, Speranza B, Sinigaglia M, Corbo MR

*Enterococcus faecium* R0026 combined with *Bacillus subtilis* R0179 prevent obesity-associated hyperlipidaemia and modulate gut microbiota in C57BL/6 mice.

**Journal of microbiology and biotechnology** , 2020 Oct 20

Authors Huang J, Huang J, Yin T, Lv H, Zhang P, Li H

Neuroprotective effects associated with immune modulation by selected lactic acid bacteria in a Parkinson's disease model.

**Nutrition (Burbank, Los Angeles County, Calif.)** , Volume: 79-80 2020 Nov - Dec

Authors Perez Visñuk D, Savoy de Giori G, LeBlanc JG, de Moreno de LeBlanc A

Modulatory Effects of Triphala and Manjistha Dietary Supplementation on Human Gut Microbiota: A Double-Blind, Randomized, Placebo-Controlled Pilot Study.

**Journal of alternative and complementary medicine (New York, N.Y.)** , 2020 Sep 18

- Authors Peterson CT, Pourang A, Dhaliwal S, Kohn JN, Uchitel S, Singh H, Mills PJ, Peterson SN, Sivamani RK*  
Modulatory Effects of Triphala and Manjistha Dietary Supplementation on Human Gut Microbiota: A Double-Blind, Randomized, Placebo-Controlled Pilot Study.  
**Journal of alternative and complementary medicine (New York, N.Y.)**, Volume: 26 Issue: 11 2020 Nov  
*Authors Peterson CT, Pourang A, Dhaliwal S, Kohn JN, Uchitel S, Singh H, Mills PJ, Peterson SN, Sivamani RK*  
Relative abundance of the Prevotella genus within the human gut microbiota of elderly volunteers determines the inter-individual responses to dietary supplementation with wheat bran arabinoxylan-oligosaccharides.  
**BMC microbiology**, Volume: 20 Issue: 1 2020 Sep 14  
*Authors Chung WSF, Walker AW, Bosscher D, Garcia-Campayo V, Wagner J, Parkhill J, Duncan SH, Flint HJ*  
Intervention with kimchi microbial community ameliorates obesity by regulating gut microbiota.  
**Journal of microbiology (Seoul, Korea)**, 2020 Sep 2  
*Authors Park SE, Kwon SJ, Cho KM, Seo SH, Kim EJ, Unno T, Bok SH, Park DH, Son HS*  
Effect of High versus Low Dairy Consumption on the Gut Microbiome: Results of a Randomized, Cross-Over Study.  
**Nutrients**, Volume: 12 Issue: 7 2020 Jul 17  
*Authors Swarte JC, Eelderink C, Douwes RM, Said MY, Hu S, Post A, Westerhuis R, Bakker SJL, Harmsen HJM*  
Dietary supplementation with Bacillus subtilis DSM 32315 alters the intestinal microbiota and metabolites in weaned piglets.  
**Journal of applied microbiology**, 2020 Jul 6  
*Authors Ding H, Zhao X, Ma C, Gao Q, Yin Y, Kong X, He J*  
Soy food intake associates with changes in the metabolome and reduced blood pressure in a gut microbiota dependent manner.  
**Nutrition, metabolism, and cardiovascular diseases : NMCD**, 2020 May 18  
*Authors Shah RD, Tang ZZ, Chen G, Huang S, Ferguson JF*  
Cocoa Polyphenols and Gut Microbiota Interplay: Bioavailability, Prebiotic Effect, and Impact on Human Health.  
**Nutrients**, Volume: 12 Issue: 7 2020 Jun 27  
*Authors Sorrenti V, Ali S, Mancin L, Davinelli S, Paoli A, Scapagnini G*  
Cocoa Polyphenols and Gut Microbiota Interplay: Bioavailability, Prebiotic Effect, and Impact on Human Health.  
**Nutrients**, Volume: 12 Issue: 7 2020 Jun 27  
*Authors Sorrenti V, Ali S, Mancin L, Davinelli S, Paoli A, Scapagnini G*  
Antioxidant, Anti-Inflammatory, and Microbial-Modulating Activities of Essential Oils: Implications in Colonic Pathophysiology.  
**International journal of molecular sciences**, Volume: 21 Issue: 11 2020 Jun 10  
*Authors Spisni E, Petrocelli G, Imbesi V, Spigarelli R, Azzinnari D, Donati Sarti M, Campieri M, Valerii MC*  
The Protective Effects of 2'-Fucosyllactose against E. Coli O157 Infection Are Mediated by the Regulation of Gut Microbiota and the Inhibition of Pathogen Adhesion.  
**Nutrients**, Volume: 12 Issue: 5 2020 May 1  
*Authors Wang Y, Zou Y, Wang J, Ma H, Zhang B, Wang S*  
Lactobacillus paracasei subsp. paracasei NTU 101 lyophilized powder improves loperamide-induced constipation in rats.  
**Heliyon**, Volume: 6 Issue: 4 2020 Apr  
*Authors Chen CL, Chao SH, Pan TM*  
Cocoa diet modulates gut microbiota composition and improves intestinal health in Zucker diabetic rats.  
**Food research international (Ottawa, Ont.)**, Volume: 132 2020 Jun  
*Authors Álvarez-Cilleros D, Ramos S, López-Oliva ME, Escrivá F, Álvarez C, Fernández-Millán E, Martín MÁ*  
Cocoa diet modulates gut microbiota composition and improves intestinal health in Zucker diabetic rats.  
**Food research international (Ottawa, Ont.)**, Volume: 132 2020 Jun  
*Authors Álvarez-Cilleros D, Ramos S, López-Oliva ME, Escrivá F, Álvarez C, Fernández-Millán E, Martín MÁ*  
Effects of Tributyrin Supplementation on Growth Performance, Insulin, Blood Metabolites and Gut Microbiota in Weaned Piglets.  
**Animals : an open access journal from MDPI**, Volume: 10 Issue: 4 2020 Apr 22  
*Authors Sotira S, Dell'Anno M, Caprarulo V, Hejna M, Pirrone F, Callegari ML, Tucci TV, Rossi L*  
Cultivation of the Next-Generation Probiotic Akkermansia muciniphila, Methods of Its Safe Delivery to the Intestine, and Factors Contributing to Its Growth In Vivo.  
**Current microbiology**, Volume: 77 Issue: 8 2020 Aug  
*Authors Ropot AV, Karamzin AM, Sergeyev OV*  
2'-fucosyllactose Supplementation Improves Gut-Brain Signaling and Diet-Induced Obese Phenotype and Changes the Gut Microbiota in High Fat-Fed Mice.  
**Nutrients**, Volume: 12 Issue: 4 2020 Apr 5

Authors Lee S, Goodson M, Vang W, Kalanetra K, Barile D, Raybould H

[Conserved and variable responses of the gut microbiome to resistant starch type 2](#)

**Nutrition research (New York, N.Y.)**, Volume: 77 2020 Feb 22

Authors Bendiks ZA, Knudsen KEB, Keenan MJ, Marco ML

[Beneficial effects of flaxseed polysaccharides on metabolic syndrome via gut microbiota in high-fat diet fed mice.](#)

**Food research international (Ottawa, Ont.)**, Volume: 131 2020 May

Authors Yang C, Xu Z, Deng Q, Huang Q, Wang X, Huang F

[Alterations in cecal microbiota and intestinal barrier function of laying hens fed on fluoride supplemented diets.](#)

**Ecotoxicology and environmental safety**, Volume: 193 2020 Apr 15

Authors Miao L, Gong Y, Li H, Xie C, Xu Q, Dong X, Elwan HAM, Zou X

[Milk fat influences proteolytic enzyme activity of dairy Pseudomonas species.](#)

**International journal of food microbiology**, Volume: 320 2020 Jan 28

Authors Zhang D, Palmer J, Teh KH, Calinisan MMA, Flint S

[Dietary prophage inducers and antimicrobials: toward landscaping the human gut microbiome.](#)

**Gut microbes**, 2020 Jan 13

Authors Boling L, Cuevas DA, Grasis JA, Kang HS, Knowles B, Levi K, Maughan H, McNair K, Rojas MI, Sanchez SE, Smurthwaite C, Rohwer F

[Dietary resistant starch modifies the composition and function of caecal microbiota of broilers.](#)

**Journal of the science of food and agriculture**, Volume: 100 Issue: 3 2020 Feb

Authors Zhang Y, Liu Y, Li J, Xing T, Jiang Y, Zhang L, Gao F

[The effect of inulin and resistant maltodextrin on weight loss during energy restriction: a randomised, placebo-controlled, double-blinded intervention.](#)

**European journal of nutrition**, 2019 Oct 11

Authors Hess AL, Benítez-Páez A, Blædel T, Larsen LH, Iglesias JR, Madera C, Sanz Y, Larsen TM, MyNewGut Consortium.

[Influence of Bacillus subtilis GCB-13-001 on growth performance, nutrient digestibility, blood characteristics, faecal microbiota and faecal score in weanling pigs.](#)

**Journal of animal physiology and animal nutrition**, 2019 Sep 20

Authors Wang H, Kim KP, Kim IH

[Regulatory Function of Buckwheat-Resistant Starch Supplementation on Lipid Profile and Gut Microbiota in Mice Fed with a High-Fat Diet.](#)

**Journal of food science**, Volume: 84 Issue: 9 2019 Sep

Authors Zhou Y, Zhao S, Jiang Y, Wei Y, Zhou X

[Immunomodulatory and Prebiotic Effects of 2'-Fucosyllactose in Suckling Rats.](#)

**Frontiers in immunology**, Volume: 10 2019

Authors Azagra-Boronat I, Massot-Cladera M, Mayneris-Perxachs J, Knipping K, Van't Land B, Tims S, Stahl B, Garssen J, Franch À, Castell M, Rodríguez-Lagunas MJ, Pérez-Cano FJ

[Dietary Factors and Modulation of Bacteria Strains of Akkermansia muciniphila and Faecalibacterium prausnitzii: A Systematic Review.](#)

**Nutrients**, Volume: 11 Issue: 7 2019 Jul 11

Authors Verhoog S, Taneri PE, Roa Díaz ZM, Marques-Vidal P, Troup JP, Bally L, Franco OH, Glisic M, Muka T

[Supplementation of diet with non-digestible oligosaccharides alters the intestinal microbiota, but not arthritis development, in IL-1 receptor antagonist deficient mice.](#)

**PloS one**, Volume: 14 Issue: 7 2019

Authors Rogier R, Ederveen THA, Wopereis H, Hartog A, Boekhorst J, van Hijum SAFT, Knol J, Garssen J, Walgreen B, Helsen MM, van der Kraan PM, van Lent PLEM, van de Loo FAJ, Abdollahi-Roodsaz S, Koenders MI

[Effects of Different Diets on Microbiota in The Small Intestine Mucus and Weight Regulation in Rats.](#)

**Scientific reports**, Volume: 9 Issue: 1 2019 Jun 11

Authors Meng Y, Li X, Zhang J, Wang C, Lu F

[The role of short-chain fatty acids in microbiota-gut-brain communication.](#)

**Nature reviews. Gastroenterology & hepatology**, Volume: 16 Issue: 8 2019 Aug

Authors Dalile B, Van Oudenhove L, Vervliet B, Verbeke K

[Fermented Momordica charantia L juice modulates hyperglycemia, lipid profile, and gut microbiota in type 2 diabetic rats.](#)

**Food research international (Ottawa, Ont.)**, Volume: 121 2019 Jul

Authors Gao H, Wen JJ, Hu JL, Nie QX, Chen HH, Xiong T, Nie SP, Xie MY

[Spent Coffee Grounds Extract, Rich in Mannooligosaccharides, Promotes a Healthier Gut Microbial Community in a Dose-Dependent Manner.](#)

**Journal of agricultural and food chemistry**, Volume: 67 Issue: 9 2019 Mar 6

Authors Pérez-Burillo S, Pastoriza S, Fernández-Arteaga A, Luzón G, Jiménez-Hernández N, D`Auria G, Francino MP, Rufián-

Henares JÁ

Intestinal Morphologic and Microbiota Responses to Dietary <i>Bacillus</i> spp. in a Broiler Chicken Model.

**Frontiers in physiology** , Volume: 9 2018

Authors Li CL,Wang J,Zhang HJ,Wu SG,Hui QR,Yang CB,Fang RJ,Qi GH

Arabinoxylan from Argentinian whole wheat flour promote the growth of Lactobacillus reuteri and Bifidobacterium breve.

**Letters in applied microbiology** , Volume: 68 Issue: 2 2019 Feb

Authors Paesani C,Salvucci E,Moiraghi M,Fernandez Canigía L,Pérez GT

Strategies to promote abundance of <i>Akkermansia muciniphila</i>, an emerging probiotics in the gut, evidence from dietary intervention studies.

**Journal of functional foods** , Volume: 33 2017 Jun

Authors Zhou K

Simultaneous Supplementation of <i>Bacillus subtilis</i> and Antibiotic Growth Promoters by Stages Improved Intestinal Function of Pullets by Altering Gut Microbiota.

**Frontiers in microbiology** , Volume: 9 2018

Authors Li X,Wu S,Li X,Yan T,Duan Y,Yang X,Duan Y,Sun Q,Yang X

Supplemental Bacillus subtilis DSM 32315 manipulates intestinal structure and microbial composition in broiler chickens.

**Scientific reports** , Volume: 8 Issue: 1 2018 Oct 18

Authors Ma Y,Wang W,Zhang H,Wang J,Zhang W,Gao J,Wu S,Qi G

Antimicrobial activity of spices essential oils and its effectiveness on mature biofilms of human pathogens.

**Natural product research** , 2018 Oct 13

Authors Condò C,Anacorso I,Sabia C,Iseppi R,Anfelli I,Forti L,de Niederhäusern S,Bondi M,Messi P

Metagenomic Insights into the Degradation of Resistant Starch by Human Gut Microbiota.

**Applied and environmental microbiology** , Volume: 84 Issue: 23 2018 Dec 1

Authors Vital M,Howe A,Bergeron N,Krauss RM,Jansson JK,Tiedje JM

Probiotic <i>Lactobacillus plantarum</i> Promotes Intestinal Barrier Function by Strengthening the Epithelium and Modulating Gut Microbiota.

**Frontiers in microbiology** , Volume: 9 2018

Authors Wang J, Ji H,Wang S,Liu H,Zhang W,Zhang D,Wang Y

Introducing insoluble wheat bran as a gut microbiota niche in an in vitro dynamic gut model stimulates propionate and butyrate production and induces colon region specific shifts in the luminal and mucosal microbial community.

**Environmental microbiology** , Volume: 20 Issue: 9 2018 Sep

Authors De Paepe K,Verspreet J,Verbeke K,Raes J,Courtin CM, Van de Wiele T

Inulin fiber dose-dependently modulates energy balance, glucose tolerance, gut microbiota, hormones and diet preference in high-fat-fed male rats.

**The Journal of nutritional biochemistry** , Volume: 59 2018 Sep

Authors Singh A,Zapata RC,Pezeshki A,Reidelberger RD,Chelikani PK

Beneficial effects of the commercial lactic acid bacteria product, Vigis 101, on gastric mucosa and intestinal bacterial flora in rats.

**Journal of microbiology, immunology, and infection = Wei mian yu gan ran za zhi** , 2018 Jun 23

Authors Kao L,Liu TH,Tsai TY,Pan TM

Anti-inflammatory and antibacterial evaluation of Thymus sipyleus Boiss. subsp. sipyleus var. sipyleus essential oil against rhinosinusitis pathogens.

**Microbial pathogenesis** , Volume: 122 2018 Sep

Authors Demirci F,Karaca N,Tekin M, Demirci B

Niacin alters the ruminal microbial composition of cattle under high-concentrate condition.

**Animal nutrition (Zhongguo xu mu shou yi xue hui)** , Volume: 3 Issue: 2 2017 Jun

Authors Luo D,Gao Y,Lu Y,Qu M,Xiong X,Xu L,Zhao X,Pan K,Ouyang K

## Additional APriori Analysis Available

Available at: <https://microbiomeprescription.com/Library/PubMed>

Acne  
ADHD  
Allergic Rhinitis (Hay Fever)  
Allergies  
Alopecia (Hair Loss)

Alzheimer's disease  
Amyotrophic lateral sclerosis (ALS) Motor Neuron  
Ankylosing spondylitis  
Anorexia Nervosa  
Antiphospholipid syndrome (APS)  
Asthma  
Atherosclerosis  
Autism  
Autoimmune Disease  
Barrett esophagus cancer  
Bipolar Disorder  
Brain Trauma  
Carcinoma  
Celiac Disease  
Cerebral Palsy  
Chronic Fatigue Syndrome  
Chronic Kidney Disease  
Chronic Lyme  
Chronic Obstructive Pulmonary Disease (COPD)  
Chronic Urticaria (Hives)  
Coagulation / Micro clot triggering bacteria  
Colorectal Cancer  
Constipation  
Coronary artery disease  
COVID-19  
Crohn's Disease  
cystic fibrosis  
deep vein thrombosis  
Depression  
Dermatomyositis  
Eczema  
Endometriosis  
Eosinophilic Esophagitis  
Epilepsy  
Fibromyalgia  
Functional constipation / chronic idiopathic constipation  
gallstone disease (gsd)  
Gastroesophageal reflux disease (Gerd) including Barrett's esophagus  
Generalized anxiety disorder  
Gout  
Graves' disease  
Hashimoto's thyroiditis  
Hidradenitis Suppurativa  
Histamine Issues From Ubiome  
Histamine Issues, Mast Cell Issue, DAO Insufficiency  
hypercholesterolemia (High Cholesterol)  
hyperglycemia  
Hyperlipidemia (High Blood Fats)  
hypersomnia  
hypertension (High Blood Pressure)  
Hypoxia  
IgA nephropathy (IgAN)  
Inflammatory Bowel Disease  
Insomnia  
Intelligence  
Irritable Bowel Syndrome  
Juvenile idiopathic arthritis  
Liver Cirrhosis

Long COVID  
Lung Cancer  
ME/CFS with IBS  
ME/CFS without IBS  
Menopause  
Metabolic Syndrome  
Mood Disorders  
Multiple Sclerosis  
Multiple system atrophy (MSA)  
Neuropathy (all types)  
neuropsychiatric disorders (PANDAS, PANS)  
Nonalcoholic Fatty Liver Disease (nafld) Nonalcoholic  
NonCeliac Gluten Sensitivity  
Obesity  
obsessive-compulsive disorder  
Osteoarthritis  
Osteoporosis  
Parkinson's Disease  
Postural orthostatic tachycardia syndrome  
Premenstrual dysphoric disorder  
Psoriasis  
rheumatoid arthritis (RA), Spondyloarthritis (SpA)  
Rosacea  
Schizophrenia  
Sjögren syndrome  
Sleep Apnea  
Small Intestinal Bacterial Overgrowth (SIBO)  
Stress / posttraumatic stress disorder  
Systemic Lupus Erythematosus  
Tic Disorder  
Tourette syndrome  
Type 1 Diabetes  
Type 2 Diabetes  
Ulcerative colitis  
Unhealthy Ageing