

Microbiome Information for: Allergies

For 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

Bacteria being reported because of atypical values.

These bacteria were reported atypical in studies of Allergies

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	Lactobacillus	genus	Low	1578
Bacteroidia	class	High	200643	Methanobrevibacter	genus	High	2172
Clostridia	class	High	186801	Methylobacterium	genus	High	407
Acidaminococcaceae	family	Low	909930	Prevotella	genus	Low	838
Bacteroidaceae	family	High	815	Propionibacterium	genus	High	1743
Bifidobacteriaceae	family	Low	31953	Turicibacter	genus	High	191303
Clostridiaceae	family	High	31979	Akkermansia muciniphila	species	Low	239935
Comamonadaceae	family	High	80864	Bacteroides fragilis	species	High	817
Enterobacteriaceae	family	Low	543	Bifidobacterium adolescentis	species	Low	1680
Erysipelotrichaceae	family	High	128827	Bifidobacterium bifidum	species	High	1681
Lactobacillaceae	family	Low	33958	Bifidobacterium catenulatum	species	High	1686
Methylobacteriaceae	family	High	119045	Bifidobacterium longum	species	High	216816
Oscillospiraceae	family	Low	216572	Blautia obeum	species	High	40520
Ruminococcaceae	family	High	541000	Clostridium difficile	species	High	1496
Sphingomonadaceae	family	High	41297	Collinsella aerofaciens	species	High	74426
Adlercreutzia	genus	High	447020	Coprococcus catus	species	High	116085
Alistipes	genus	Low	239759	Dorea formicigenerans	species	High	39486
Clostridium	genus	Low	1485	Escherichia coli	species	High	562
Eggerthella	genus	High	84111	Faecalibacterium prausnitzii	species	Low	853
Enhydrobacter	genus	High	212791	Oscillibacter valericigenes	species	High	351091
Enterococcus	genus	Low	1350	Phascolarctobacterium faecium	species	Low	33025
Faecalibacterium	genus	High	216851	Prevotella copri	species	Low	165179
Lachnospirillum	genus	High	1506553	Ruminococcus bromii	species	Low	40518
				Staphylococcus aureus	species	Low	1280

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.

Antibiotics annotated with [CFS] have been used with various degree of success with Myalgic Encephalomyelitis, Chronic Fatigue Syndrome, Chronic Lyme, Chronic Q-Fever and Long COVID conditions. Rotation of antibiotics with 3 weeks off between courses is recommended.

AMPICILLIN (ANTIBIOTIC)S[CFS]

berberine 1.5 gram/day

bifidobacterium bifidum (probiotics) 1 BCFU/day

CIPROFLOXACIN (ANTIBIOTIC)S[CFS]

inulin (prebiotic) 32 gram/day

levan

MINOCYCLINE (ANTIBIOTIC)S[CFS]

piperacillin-tazobactam (antibiotic)s

resistant maltodextrin 50 gram/day

resistant starch

saccharin 450 mg/day

saccharomyces cerevisiae (probiotics)

salt (sodium chloride)

Slippery Elm

syzygium aromaticum (clove)

tetracycline (antibiotic)s

triphalala 9000 mg/day

vitamin d 50000 UI/day

Retail Probiotics

Over 260 retail probiotics were evaluated with the following deemed beneficial with no known adverse risks.

Swiss BioEnergetics / Full Spectrum Probiotic Defence
 theramedix / probiotic
 Physician Choice / 60 Billion Probiotics
 blackmores (au) / probiotics+ immune defence
 blackmore (au) / probiotics+ bowel support
 Wholesome Wellness / Raw Probiotic
 naturopathica (au) / gastrohealth probiotic dairy free 50 billion
 organic 3 / gutpro
 spain (es) / profaes4 viajeros
 fürstenmed / lacto-bifido
 nature's way (au) / restore probiotic daily health 90s
 optibac / for daily immunity
 HLH BIOPHARMA(DE) / LACTOBACT ® PREMIUM
 naturopathica (au) / gastrohealth probiotic ultimate daily care 100billion
 udo's choice / super 8 gold
 Smidge / Sensitive Probiotic
 Krauterhaus / Lactopro
 LiveWell Nutrition / Pro-45
 Jetson (US) / Immunity Probiotics
 genestra brands@ hm
 Advanced Bio-Cultures / Advance Multi Strain Probiotics
 elixa / probiotic
 bioray / cytoflora
 renew life / ultimate flora
 up4 / ultra
 optibac / for your cholesterol
 bioglan bio (au) / happy probiotic 100
 customprobiotics.com / B. Bifidum Probiotic Powder
 SuperSmart / Lactoxira
 douglas laboratories / multi probiotic 40 billion
 up4 / adult
 Bromatech (IT) / Acronelle
 nature's way (au) / restore probiotic bowel & colon health 30s
 jamieson (can) / probiotic 10 bcfu
 shin biofermin (jp) /s
 Bromatech (IT) / Lautoselle
 renew life men's probiotic - ultimate
 SuperSmart / Full Spectrum Probiotic Formula
 claire labs / target gb-x
 naturopathica (au) / gastrohealth fibrepro
 philips / colon health
 blackmore (au) / probiotics+ eczema relief
 quantum wellness / restora flora
 Ombre / Endless Energy
 Seeking Health / Probiota HistaminX
 bravo europe / starter and complex
 Thryve Inside/ L.Reu,Rham,Casi; B.Lactis
 vita miracle / ultra-30 probiotics
 HLH BIOPHARMA(DE) / LACTOBACT ® 60PLUS
 Bromatech (IT) / Bifiselle
 wakamoto (jp) / wakamoto pharmaceutical intestinal drug
 custom probiotics / five strain bifidobacteria
 natren / bifido factor
 OMNI-BIOTIC®/ TRAVEL

speer labs / emuaid first defense
nature's way (au) / restore probiotic 30 billion 30s
spain (es) / axiboulardi
organic 3 / primal gut
HLH BIOPHARMA(DE) / LACTOBACT ® OMNI FOS
Dr.Max / ProtectMax ATB
naturopathica (au) / gastrohealth probiotic daily care
Physis / Advance Probiotics
blackmore (au) / probiotics+ daily health
Dr. Mercola / Complete Probiotics
Garden of Life / Dr. Formulated Once Daily Women's
gnc / ultra probiotic complex
NOW FOODS / Clinical GI Probiotic
natren / healthy trinity probiotic
ecology_allergycare
hyperbiotics / pro-15
Genesis Bifidobacterium Complex BB Probiotic
nature's way (au) / restore probiotic 100 billion
solaray / microbiome probiotic colon formula
cytoplan(uk) / dentavital bifidophilus
Metabolics / Bifidobacterium Bifidum Powder
1 md / complete probiotics platinum
OMNI-BIOTIC®/ 10 AAD
young living/life 9
custom probiotics / b. lactis & b. bifidum probiotic powder
spain (es) / profaes4 edad escolar
MegaFood / MegaFlora
naturopathica (au) / gastrohealth probiotics
klaire labs / ther-biotic factor 4
spain (es) / ultralevura
custom probiotics / six strain probiotic powder
naturopathica (au) / gastrohealth probiotic dairy free 20 bcfu
Bromatech (IT) / Serobiome
Nu U (uk) / Bio-Cultures Complex
newrhythm / probiotics 20 stains
blackmores (au) / probiotics + adults daily (90 capsules)
Windlove Probiotics / Ecologic®825
ASEA VIA / BIOME

Note: Some of these are only available regionally – search the web for sources.

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.

acarbose,(prescription)	metronidazole (antibiotic)s[CFS]
atorvastatin (prescription)	navy bean
bacillus subtilis (probiotics)	norfloxacin (antibiotic)
Burdock Root	polymannuronic acid
Caffeine	proton-pump inhibitors (prescription)
fructo-oligosaccharides (prebiotic)	raffinose(sugar beet)
Glucomannan	resveratrol (grape seed/polyphenols/red wine)
kanamycin (antibiotic)s	trimethoprim (antibiotic)s
lactulose	vitamin a
linseed(flaxseed)	Vitamin B1,thiamine hydrochloride
metformin (prescription)	Vitamin B9,folic acid
	whey

Sample of Literature Used

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

[Adult asthma with symptomatic eosinophilic inflammation is accompanied by alteration in gut microbiome.](#)

Allergy , 2023 Feb 27

Authors Gu BH,Choi JP,Park T,Kim AS,Jung HY,Choi DY,Lee SJ,Chang YS,Kim M,Park HK

[Dysfunctional Gut Microbiome Networks in Childhood IgE-Mediated Food Allergy.](#)

International journal of molecular sciences , Volume: 22 Issue: 4 2021 Feb 19

Authors Lee KH,Guo J,Song Y,Ariff A,O` Sullivan M,Hales B,Mullins BJ,Zhang G

[Fecal microbiome and metabolome differ in healthy and food-allergic twins.](#)

The Journal of clinical investigation , Volume: 131 Issue: 2 2021 Jan 19

Authors Bao R,Hesser LA,He Z,Zhou X,Nadeau KC,Nagler CR

[Microbial signature in IgE-mediated food allergies.](#)

Genome medicine , Volume: 12 Issue: 1 2020 Oct 27

Authors Goldberg MR,Mor H,Magid Neriya D,Magzal F,Muller E,Appel MY,Nachshon L,Borenstein E,Tamir S,Louzoun Y,Youngster I,Elizur A,Koren O

[Association between the intestinal microbiota and allergic sensitization, eczema, and asthma: A systematic review.](#)

The Journal of allergy and clinical immunology , Volume: 143 Issue: 2 2019 Feb

Authors Zimmermann P,Messina N,Mohn WW,Finlay BB,Curtis N

[Urine Bacteria-Derived Extracellular Vesicles and Allergic Airway Diseases in Children.](#)

International archives of allergy and immunology , 2018 Nov 9

Authors Samra M,Nam SK,Lim DH,Kim DH,Yang J,Kim YK,Kim JH

[Fecal Microbiome Signatures are Different in Food Allergic Children Compared to Siblings and Healthy Children.](#)

Pediatric allergy and immunology : official publication of the European Society of Pediatric Allergy and Immunology , 2018 Apr 6

Authors Kourosh A,Luna RA,Balderas M,Nance C,Anagnostou A,Devaraj S,Davis CM

[Fecal microbiome signatures are different in food-allergic children compared to siblings and healthy children.](#)

Pediatric allergy and immunology : official publication of the European Society of Pediatric Allergy and Immunology , Volume: 29 Issue: 5 2018 Aug

Authors Kourosh A,Luna RA,Balderas M,Nance C,Anagnostou A,Devaraj S,Davis CM

[Intestinal microbiota and allergic diseases: A systematic review.](#)

Allergologia et immunopathologia , Volume: 44 Issue: 2 2016 Mar-Apr

Authors Melli LC,do Carmo-Rodrigues MS,Araújo-Filho HB,Solé D,de Moraes MB

[New insights into the hygiene hypothesis in allergic diseases: mediation of sibling and birth mode effects by the gut microbiota.](#)

Gut microbes , Volume: 5 Issue: 2 2014 Mar-Apr

Authors Penders J,Gerhold K,Thijs C,Zimmermann K,Wahn U,Lau S,Hamelmann E

[Comparing the Influences of Metformin and Berberine on the Intestinal Microbiota of Rats With Nonalcoholic Steatohepatitis.](#)

In vivo (Athens, Greece) , Volume: 37 Issue: 5 2023 Sep-Oct

Authors Chen D,Xiong J,Chen G,Zhang Z,Liu Y,Xu J,Xu H

[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 a Saccharomyces cerevisiae fermentation product on fecal characteristics, metabolite concentrations, and microbiota populations of dogs subjected to exercise challenge.](#)

Journal of animal science , 2022 Dec 27

Authors Oba PM,Carroll MQ,Sieja KM,Nogueira JPS,Yang X,Epp TY,Warzecha CM,Varney JL,Fowler JW,Coon CN,Swanson KS

[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

[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

[Regulatory Effect of Resveratrol on Inflammation Induced by Lipopolysaccharides via Reprogramming Intestinal Microbes and Ameliorating Serum Metabolism Profiles.](#)

Frontiers in immunology , Volume: 12 2021

Authors Ding S,Jiang H,Fang J,Liu G

[Effects of free radicals from doxycycline hyclate and minocycline hydrochloride under blue light irradiation on the deactivation of Staphylococcus aureus, including a methicillin-resistant strain.](#)

Journal of photochemistry and photobiology. B, Biology , Volume: 226 2022 Jan

Authors Yuann JP,Lee SY,He S,Wong TW,Yang MJ,Cheng CW,Huang ST,Liang JY

[The Association between Vitamin D and Gut Microbiota: A Systematic Review of Human Studies.](#)

Nutrients , Volume: 13 Issue: 10 2021 Sep 26

Authors Bellerba F,Muzio V,Gnagnarella P,Facciotti F,Chiocca S,Bossi P,Cortinovis D,Chiaradonna F,Serrano D,Raimondi S,Zerbato B,Palorini R,Canova S,Gaeta A,Gandini S

[Unravelling the collateral damage of antibiotics on gut bacteria.](#)

Nature , Volume: 599 Issue: 7883 2021 Nov

Authors Maier L,Goemans CV,Wirbel J,Kuhn M,Eberl C,Pruteanu M,Müller P,Garcia-Santamarina S,Cacace E,Zhang B,Gekeler C,Banerjee T,Anderson EE,Milanese A,Löber U,Forslund SK,Patil KR,Zimmermann M,Stecher B,Zeller G,Bork P,Typas A

[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

[Low-Dose Lactulose as a Prebiotic for Improved Gut Health and Enhanced Mineral Absorption.](#)

Frontiers in nutrition , Volume: 8 2021

Authors Karakan T,Tuohy KM,Janssen-van Solingen G

[Vitamin D and The Gut Microbiota: a Narrative Literature Review.](#)

Clinical nutrition research , Volume: 10 Issue: 3 2021 Jul

Authors Tangestani H,Boroujeni HK,Djafarian K,Emamat H,Shab-Bidar S

[Dose-response and functional role of whey permeate as a source of lactose and milk oligosaccharides on intestinal health and growth of nursery pigs.](#)

Journal of animal science , Volume: 99 Issue: 1 2021 Jan 1

Authors Jang KB,Purvis JM, Kim SW

[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

[Habitual Dietary Intake Affects the Altered Pattern of Gut Microbiome by Acarbose in Patients with Type 2 Diabetes.](#)

Nutrients , Volume: 13 Issue: 6 2021 Jun 19

Authors Takewaki F,Nakajima H,Takewaki D,Hashimoto Y,Majima S,Okada H,Senmaru T,Ushigome E,Hamaguchi M,Yamazaki M,Tanaka Y,Nakajima S,Ohno H,Fukui M

[Resveratrol and its derivative pterostilbene ameliorate intestine injury in intrauterine growth-retarded weanling piglets by](#)

modulating redox status and gut microbiota.

Journal of animal science and biotechnology , Volume: 12 Issue: 1 2021 Jun 10

Authors Chen Y,Zhang H,Chen Y,Jia P, Ji S,Zhang Y,Wang T

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

Different *Bifidobacterium bifidum* strains change the intestinal flora composition of mice via different mechanisms to alleviate loperamide-induced constipation.

Food & function , 2021 May 26

Authors Chai M,Wang L,Li X,Zhao J,Zhang H,Wang G,Chen W

Vitamin D ameliorates high-fat-diet-induced hepatic injury via inhibiting pyroptosis and alters gut microbiota in rats.

Archives of biochemistry and biophysics , Volume: 705 2021 Jul 15

Authors Zhang X,Shang X,Jin S, Ma Z,Wang H,Ao N,Yang J,Du J

Influence of Proton Pump Inhibitors and Histamine Receptor 2 Antagonists on Blastocystis ST3 and Selected Microorganisms of Intestinal Microbiota In Vitro.

Clinical and translational gastroenterology , Volume: 12 Issue: 4 2021 Apr 9

Authors Lepczynska M,Dzika E,Chen W,Lu CY

Navy Bean Supplementation in Established High-Fat Diet-Induced Obesity Attenuates the Severity of the Obese Inflammatory Phenotype.

Nutrients , Volume: 13 Issue: 3 2021 Feb 26

Authors Monk JM,Wu W,Lepp D,Pauls KP,Robinson LE,Power KA

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,Fehlbaum S,Seifert N,Richard N,Bruins MJ,Sybesma W,Rehman A,Steinert RE

Dose-response and functional role of whey permeate as a source of lactose and milk oligosaccharides on intestinal health and growth of nursery pigs.

Journal of animal science , Volume: 99 Issue: 1 2021 Jan 1

Authors Jang KB,Purvis JM, Kim SW

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

Dose-response and functional role of whey permeate as a source of lactose and milk oligosaccharides on intestinal health and growth of nursery pigs.

Journal of animal science , 2021 Jan 12

Authors Jang K,Purvis JM, Kim SW

Atorvastatin alleviates microglia-mediated neuroinflammation via modulating the microbial composition and the intestinal barrier function in ischemic stroke mice.

Free radical biology & medicine , Volume: 162 2020 Dec 3

Authors Zhang P,Zhang X,Huang Y,Chen J,Shang W,Shi G,Zhang L,Zhang C,Chen R

Active Vitamin D₃ Treatment Attenuated Bacterial Translocation via Improving Intestinal Barriers in Cirrhotic Rats.

Molecular nutrition & food research , 2020 Nov 30

Authors Lee PC,Hsieh YC,Huo TI,Yang UC,Lin CH,Li CP,Huang YH,Hou MC,Lin HC,Lee KC

Coadministration of metformin prevents olanzapine-induced metabolic dysfunction and regulates the gut-liver axis in rats.

Psychopharmacology , Volume: 238 Issue: 1 2021 Jan

Authors Luo C,Wang X,Huang HX,Mao XY,Zhou HH,Liu ZQ

Effects of Non-insulin Anti-hyperglycemic Agents on Gut Microbiota: A Systematic Review on Human and Animal Studies.

Frontiers in endocrinology , Volume: 11 2020

Authors Cao TTB,Wu KC,Hsu JL,Chang CS,Chou C,Lin CY,Liao YM,Lin PC,Yang LY,Lin HW

Bifidobacterium bifidum TMC3115 ameliorates milk protein allergy in by affecting gut microbiota: A randomized double-blind control trial.

Journal of food biochemistry , Volume: 44 Issue: 11 2020 Nov

Authors Jing W,Liu Q,Wang W

Synergistic Effect of Berberine-Based Chinese Medicine Assembled Nanostructures on Diarrhea-Predominant Irritable Bowel Syndrome In Vivo.

Frontiers in pharmacology , Volume: 11 2020

Authors Li L,Cui H,Li T,Qi J,Chen H,Gao F,Tian X,Mu Y,He R,Lv S,Chu F,Xu B,Wang P,Lei H,Xu H,Wang C

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

Vitamin D Supplementation in Laboratory-Bred Mice: An In Vivo Assay on Gut Microbiome and Body Weight.

Microbiology insights , Volume: 13 2020

Authors Badger-Emeka LI,AJaziri ZY,Almulhim CF,Aldreess AS,AIshakhs ZH,AIAithan RI,Allothman FA

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

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

Effect of Berberine on Atherosclerosis and Gut Microbiota Modulation and Their Correlation in High-Fat Diet-Fed ApoE^{-/-} Mice.

Frontiers in pharmacology , Volume: 11 2020

Authors Wu M,Yang S,Wang S,Cao Y,Zhao R,Li X,Xing Y,Liu L

Anti-inflammatory activity of alkali-soluble polysaccharides from Arctium lappa L. and its effect on gut microbiota of mice with inflammation.

International journal of biological macromolecules , Volume: 154 2020 Jul 1

Authors Zhang X,Zhang N,Kan J,Sun R,Tang S,Wang Z,Chen M,Liu J,Jin C

Prebiotic activity of garlic (*Allium sativum*) extract on *Lactobacillus acidophilus*.

Veterinary world , Volume: 12 Issue: 12 2019 Dec

Authors Sunu P,Sunarti D,Mahfudz LD,Yunianto VD

Effect of Dose and Timing of Burdock (*Arctium lappa*) Root Intake on Intestinal Microbiota of Mice.

Microorganisms , Volume: 8 Issue: 2 2020 Feb 6

Authors Watanabe A,Sasaki H,Miyakawa H,Nakayama Y,Lyu Y,Shibata S

The effects of high doses of vitamin D on the composition of the gut microbiome of adolescent girls.

Clinical nutrition ESPEN , Volume: 35 2020 Feb

Authors Tabatabaeizadeh SA,Fazeli M,Meshkat Z,Khodashenas E,Esmaili H,Mazloun S,Ferns GA,Abdizadeh MF,Ghayour-Mobarhan M

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

Lactulose drives a reversible reduction and qualitative modulation of the faecal microbiota diversity in healthy dogs.

Scientific reports , Volume: 9 Issue: 1 2019 Sep 16

Authors Ferreira MDF,Salavati Schmitz S,Schoenebeck JJ,Clements DN,Campbell SM,Gaylor DE,Mellanby RJ,Gow AG,Salavati M

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

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

Resveratrol attenuates high-fat diet-induced non-alcoholic steatohepatitis by maintaining gut barrier integrity and inhibiting gut inflammation through regulation of the endocannabinoid system.

Clinical nutrition (Edinburgh, Scotland) , 2019 May 30

Authors Chen M,Hou P,Zhou M,Ren Q,Wang X,Huang L,Hui S,Yi L,Mi M

In vivo and in vitro anti-inflammatory effects of water-soluble polysaccharide from *Arctium lappa*.

International journal of biological macromolecules , Volume: 135 2019 Aug 15

Authors Zhang N,Wang Y,Kan J,Wu X,Zhang X,Tang S,Sun R,Liu J,Qian C,Jin C

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

Structural characterization of water-soluble polysaccharide from *Arctium lappa* and its effects on colitis mice.

Carbohydrate polymers , Volume: 213 2019 Jun 1

Authors Wang Y,Zhang N,Kan J,Zhang X,Wu X,Sun R,Tang S,Liu J,Qian C,Jin C

Influence of proton pump inhibitors on microbiota in chronic liver disease patients.

Hepatology international , Volume: 13 Issue: 2 2019 Mar

Authors Yamamoto K,Ishigami M,Honda T,Takeyama T,Ito T,Ishizu Y,Kuzuya T,Hayashi K,Goto H,Hirooka Y

Metformin and gut microbiota: their interactions and their impact on diabetes.

Hormones (Athens, Greece) , 2019 Feb 4

Authors Vallianou NG,Stratigou T,Tsagarakis S

Intestinal Morphologic and Microbiota Responses to Dietary *Bacillus* 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

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

Journal of functional foods , Volume: 33 2017 Jun

Authors Zhou K

Inulin-type fructans improve active ulcerative colitis associated with microbiota changes and increased short-chain fatty acids levels.

Gut microbes , 2018 Nov 5

Authors Valcheva R,Koleva P,Martínez I,Walter J,Gänzle MG,Dieleman LA

Simultaneous Supplementation of *Bacillus subtilis* 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

In vitro fermentation of raffinose by the human gut bacteria.

Food & function , Volume: 9 Issue: 11 2018 Nov 14

Authors Mao B,Tang H,Gu J,Li D,Cui S,Zhao J,Zhang H,Chen W

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

Natural product research , 2018 Oct 13

Authors Condò C,Anacarso 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

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

Bifidobacterium bifidum TMC3115 Can Characteristically Influence Glucose and Lipid Profile and Intestinal Microbiota in the Middle-Aged and Elderly.

Probiotics and antimicrobial proteins , 2018 Jul 5

Authors Wang K,Yu X,Li Y,Guo Y,Ge L,Pu F,Ma X,Cui W,Marrota F,He F,Li M

Composition and metabolism of fecal microbiota from normal and overweight children are differentially affected by melibiose, raffinose and raffinose-derived fructans.

Anaerobe , Volume: 52 2018 Aug

Authors Adamberg K,Adamberg S,Ernits K,Larionova A,Voor T,Jaagura M,Visnapuu T,Alamäe T

Catechin supplemented in a FOS diet induces weight loss by altering cecal microbiota and gene expression of colonic epithelial cells.

Food & function , Volume: 9 Issue: 5 2018 May 23

Authors Luo J,Han L,Liu L,Gao L,Xue B,Wang Y,Ou S,Miller M,Peng X

Prebiotic Mannan-Oligosaccharides Augment the Hypoglycemic Effects of Metformin in Correlation with Modulating Gut Microbiota.

Journal of agricultural and food chemistry , Volume: 66 Issue: 23 2018 Jun 13

Authors Zheng J,Li H,Zhang X,Jiang M,Luo C,Lu Z,Xu Z,Shi J

Metformin: old friend, new ways of action-implication of the gut microbiome?

Current opinion in clinical nutrition and metabolic care , Volume: 21 Issue: 4 2018 Jul

Authors Rodríguez J,Hiel S,Delzenne NM

Effect of lactulose intervention on gut microbiota and short chain fatty acid composition of C57BL/6J mice.

MicrobiologyOpen , Volume: 7 Issue: 6 2018 Dec

Authors Zhai S,Zhu L,Qin S,Li L

High salt diet exacerbates colitis in mice by decreasing Lactobacillus levels and butyrate production.

Microbiome , Volume: 6 Issue: 1 2018 Mar 22

Authors Miranda PM,De Palma G,Serkis V,Lu J,Louis-Auguste MP,McCarville JL,Verdu EF,Collins SM,Bercik P

Prebiotic Potential of Herbal Medicines Used in Digestive Health and Disease.

Journal of alternative and complementary medicine (New York, N.Y.) , Volume: 24 Issue: 7 2018 Jul

Authors Peterson CT,Sharma V,Uchitel S,Denniston K,Chopra D,Mills PJ,Peterson SN

Extensive impact of non-antibiotic drugs on human gut bacteria.

Nature , Volume: 555 Issue: 7698 2018 Mar 29

Authors Maier L,Pruteanu M,Kuhn M,Zeller G,Telzerow A,Anderson EE,Brochado AR,Fernandez KC,Dose H,Mori H,Patil KR,Bork P,Typas A

Inulin-type fructan improves diabetic phenotype and gut microbiota profiles in rats.

PeerJ , Volume: 6 2018

Authors Zhang Q,Yu H,Xiao X,Hu L,Xin F,Yu X

Fermentation of non-digestible raffinose family oligosaccharides and galactomannans by probiotics.

Food & function , Volume: 9 Issue: 3 2018 Mar 1

Authors Zartl B,Silberbauer K,Loeppert R,Viernstein H,Praznik W,Mueller M

Atorvastatin Treatment Modulates the Gut Microbiota of the Hypercholesterolemic Patients.

Omic : a journal of integrative biology , Volume: 22 Issue: 2 2018 Feb

Authors Khan TJ,Ahmed YM,Zamzami MA,Siddiqui AM,Khan I,Baothman OAS,Mehanna MG,Kuerban A,Kaleemuddin M,Yasir M

[Assessment of the impact of vitamin and dietary fiber content in the diet on the characteristics of protective colon microbiota populations of rats].

Voprosy pitaniia , Volume: 84 Issue: 6 2015

Authors Markova YM,Sheveleva SA

Effect of atorvastatin on the gut microbiota of high fat diet-induced hypercholesterolemic rats.

Scientific reports , Volume: 8 Issue: 1 2018 Jan 12

Authors Khan TJ,Ahmed YM,Zamzami MA,Mohamed SA,Khan I,Baothman OAS,Mehanna MG,Yasir M

Evaluation of the effects of different diets on microbiome diversity and fatty acid composition of rumen liquor in dairy goat.

Animal : an international journal of animal bioscience , 2018 Jan 8

Authors Cremonesi P,Conte G,Severgnini M,Turri F,Monni A,Capra E,Rapetti L,Colombini S,Chessa S,Battelli G,Alves SP,Mele M,Castiglioni B

An in vitro study to assess the impact of tetracycline on the human intestinal microbiome.

Anaerobe , Volume: 49 2017 Dec 30

Authors Jung JY,Ahn Y,Khare S,Gokulan K,Piñeiro SA,Cerniglia CE

Update of incidence and antimicrobial susceptibility trends of Escherichia coli and Klebsiella pneumoniae isolates from Chinese intra-abdominal infection patients.

BMC infectious diseases , Volume: 17 Issue: 1 2017 Dec 18

Authors Zhang H,Yang Q,Liao K,Ni Y,Yu Y,Hu B,Sun Z,Huang W,Wang Y,Wu A,Feng X,Luo Y,Chu Y,Chen S,Cao B,Su J,Duan Q,Zhang S,Shao H,Kong H,Gui B,Hu Z,Badal R,Xu Y

Protective effects of natural and partially degraded konjac glucomannan on Bifidobacteria against antibiotic damage.

Carbohydrate polymers , Volume: 181 2018 Feb 1

Authors Mao YH,Song AX,Yao ZP,Wu JY

Systematic review: human gut dysbiosis induced by non-antibiotic prescription medications.

Alimentary pharmacology & therapeutics , Volume: 47 Issue: 3 2018 Feb

Authors Le Bastard Q,Al-Ghalith GA,Grégoire M,Chapelet G,Javaudin F,Dailly E,Batard E,Knight D,Montassier E

Bolus Weekly Vitamin D3 Supplementation Impacts Gut and Airway Microbiota in Adults With Cystic Fibrosis: A Double-Blind, Randomized, Placebo-Controlled Clinical Trial.

The Journal of clinical endocrinology and metabolism , Volume: 103 Issue: 2 2018 Feb 1

Authors Kanhere M,He J,Chassaing B,Ziegler TR,Alvarez JA,Ivie EA,Hao L,Hanfelt J,Gewirtz AT,Tangricha V

Modulation of the gut microbiota by metformin improves metabolic profiles in aged obese mice.

Gut microbes , 2017 Nov 20

Authors Lee H, Lee Y, Kim J, An J, Lee S, Kong H, Song Y, Lee CK, Kim K

Vitamin D3 deficiency and its association with nasal polyposis in patients with cystic fibrosis and patients with chronic rhinosinusitis.

American journal of rhinology & allergy , Volume: 31 Issue: 6 2017 Nov 1

Authors Konstantinidis I, Fotoulaki M, Iakovou I, Chatziavramidis A, Mpalaris V, Shobat K, Markou K

An *in vitro* Comparative Evaluation of Efficacy of Disinfecting Ability of Garlic Oil, Neem Oil, Clove Oil, and Tulsi Oil with autoclaving on Endodontic K Files tested against *Enterococcus faecalis*.

International journal of clinical pediatric dentistry , Volume: 10 Issue: 3 2017 Jul-Sep

Authors Hugar S, M Patel P, Nagmoti J, Uppin C, Mistry L, Dhariwal N

High-Salt Diet Has a Certain Impact on Protein Digestion and Gut Microbiota: A Sequencing and Proteome Combined Study.

Frontiers in microbiology , Volume: 8 2017

Authors Wang C, Huang Z, Yu K, Ding R, Ye K, Dai C, Xu X, Zhou G, Li C

Illumina Sequencing Approach to Characterize Thiamine Metabolism Related Bacteria and the Impacts of Thiamine Supplementation on Ruminant Microbiota in Dairy Cows Fed High-Grain Diets.

Frontiers in microbiology , Volume: 8 2017

Authors Pan X, Xue F, Nan X, Tang Z, Wang K, Beckers Y, Jiang L, Xiong B

Dietary soy, meat, and fish proteins modulate the effects of prebiotic raffinose on composition and fermentation of gut microbiota in rats.

International journal of food sciences and nutrition , Volume: 69 Issue: 4 2018 Jun

Authors Bai G, Tsuruta T, Nishino N

Navy and black bean supplementation primes the colonic mucosal microenvironment to improve gut health.

The Journal of nutritional biochemistry , Volume: 49 2017 Nov

Authors Monk JM, Lepp D, Wu W, Pauls KP, Robinson LE, Power KA

Effects of One-Week Empirical Antibiotic Therapy on the Early Development of Gut Microbiota and Metabolites in Preterm Infants

Scientific Reports , Volume: 7 2017 Aug 14

Authors Zhu D, Xiao S, Yu J, Ai Q, He Y, Cheng C, Zhang Y, Pan Y

Microbiota, metabolome, and immune alterations in obese mice fed a high-fat diet containing type 2 resistant starch.

Molecular nutrition & food research , Volume: 61 Issue: 11 2017 Nov

Authors Barouei J, Bendiks Z, Martinic A, Mishchuk D, Heeney D, Hsieh YH, Kieffer D, Zaragoza J, Martin R, Slupsky C, Marco ML

Dose-Dependent Prebiotic Effect of Lactulose in a Computer-Controlled In Vitro Model of the Human Large Intestine.

Nutrients , Volume: 9 Issue: 7 2017 Jul 18

Authors Bothe MK, Maathuis AJH, Bellmann S, van der Vossen JMBM, Berressem D, Koehler A, Schwejda-Guettes S, Gaigg B, Kuchinka-Koch A, Stover JF

Monitoring *in vitro* antibacterial efficacy of 26 Indian spices against multidrug resistant urinary tract infecting bacteria.

Integrative medicine research , Volume: 3 Issue: 3 2014 Sep

Authors Rath S, Padhy RN

The effects of micronutrient deficiencies on bacterial species from the human gut microbiota.

Science translational medicine , Volume: 9 Issue: 390 2017 May 17

Authors Hibberd MC, Wu M, Rodionov DA, Li X, Cheng J, Griffin NW, Barratt MJ, Giannone RJ, Hettich RL, Osterman AL, Gordon JI

Berberine protects against diet-induced obesity through regulating metabolic endotoxemia and gut hormone levels.

Molecular medicine reports , Volume: 15 Issue: 5 2017 May

Authors Xu JH, Liu XZ, Pan W, Zou DJ

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Allergic Rhinitis (Hay Fever)
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Ankylosing spondylitis
Anorexia Nervosa
Antiphospholipid syndrome (APS)
Asthma
Atherosclerosis
Autism
Autoimmune Disease
Barrett esophagus cancer
Bipolar Disorder
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Chronic Fatigue Syndrome
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cystic fibrosis
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Depression
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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
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Osteoarthritis
Osteoporosis
Parkinson's Disease
Postural orthostatic tachycardia syndrome
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rheumatoid arthritis (RA),Spondyloarthritis (SpA)
Rosacea
Schizophrenia
Sjögren syndrome
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Small Intestinal Bacterial Overgrowth (SIBO)
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Systemic Lupus Erythematosus
Tic Disorder
Tourette syndrome
Type 1 Diabetes
Type 2 Diabetes
Ulcerative colitis
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