

Kyoto Encyclopedia of Genes and Genomes derived Suggestions

Review Overview

These suggestions 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 almost 2 million facts with backward chaining to sources of information. The typical sources are studies published on the US National Library of Medicine. Note: That many of the bacteria species used are *NOT* reported on many tests.

These are suggestions that are predicted to independently Decreasing Hydrogen sulfide | Hydrogen-sulfide H2S Sulfide H2S by impacting the bacteria listed on [KEGG: Kyoto Encyclopedia of Genes and Genomes](#). 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

This is an experimental feature – manual validations is recommended. For background, see this [post](#)

There is a separate report for probiotics. That report use the enzymes in probiotic species.

Analysis Provided by Microbiome Prescription

A Microbiome Analysis Company

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[Our Facebook Discussion Page](#)

Bacteria being targeted by suggestions.

These bacteria levels were deemed atypical

Bacteria Name	Rank	Shift	Taxonomy ID	Bacteria Name	Rank	Shift	Taxonomy ID
Thermosulfuriphilus ammonigenes	species		1936021	Leptotrichia buccalis	species		40542
Thermosulfurimonas marina	species		2047767	Ammonifex degensii	species		42838
Thermodesulfobacterium commune	species		1741	Sulfurospirillum barnesii	species		44674
Desulfonema magnum	species		45655	Thermosiphon melanesiensis	species		46541
Desulfonema limicola	species		45656	Desulfotobacterium hafniense	species		49338
Desulfofundulus kuznetsovii	species		58135	Desulfurobacterium thermolithotrophum	species		64160
Thermodesulfobium narugense	species		184064	Desulfocapsa sulfexigens	species		65555
Solidesulfobacterium magneticum	species		184917	Hippea maritima	species		84405
Thermovibrio ammonificans	species		228745	Campylobacter hyointestinalis subsp. hyointestinalis	subspecies		91352
Solidesulfobacterium carbinolicum	species		296842	Fervidobacterium pennivorans	species		93466
Thermodesulfobacterium geofontis	species		1295609	Geovibrio thiophilus	species		139438
Caldimicrobium thiodismutans	species		1653476	Leptotrichia wadei	species		157687
Thermodesulfobium acidiphilum	species		1794699	Leptotrichia hofstadii	species		157688
Desulfobulbus oligotrophicus	species		1909699	Leptotrichia shahii	species		157691
Thermodesulfobacterium sp. TA1	species		2234087	Thermodesulfatator indicus	species		171695
Campylobacter curvus	species		200	Pseudodesulfobacterium aespoeensis	species		182210
Campylobacter mucosalis	species		202	Malaciobacter halophilus	species		197482
Wolinella succinogenes	species		844	Sulfurospirillum sp. JPD-1	species		220622
Fusobacterium periodonticum	species		860	Prosthecochloris sp. GSB1	species		281093
Megalodesulfobacterium gigas	species		879	Caminibacter mediatlanticus	species		291048
Desulfobulbus propionicus	species		894	Alkalilimnicola ehrlichii	species		351052
Desulfococcus multivorans	species		897	Thermosulfidibacter takaii	species		412593
Halorhodospira halophila	species		1053	Calditerrivibrio nitroreducens	species		477976
Prosthecochloris aestuarii	species		1102	Malaciobacter marinus	species		505249
Flexistipes sinusarabici	species		2352	Malaciobacter mytili	species		603050
Desulfomonile tiedjei	species		2358	Leptotrichia sp. oral taxon 498	species		712368
Thermosiphon africanus	species		2421	Sulfuritalea hydrogenivorans	species		748811
Fervidobacterium islandicum	species		2423	Desulfosporosinus acidiphilus	species		885581
Fervidobacterium nodosum	species		2424	Desulfosarcina ovata subsp. sediminis	subspecies		885957
Desulfurella acetivorans	species		33002	Desulfurispirillum indicum	species		936456

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.

The recommended process to obtain a *persistent shift* of the microbiome is:

Generate 4 lists from the suggestions with nothing repeated on another list

Emphasize one list each week

After 8 weeks (2 cycles), retest the microbiome to obtains the next set of *course corrections*

This approach allows the microbiome to stabilize towards normal.

Pick only as many suggestions that suits you; there is no need to do all of them. Suggestions are based on your specific bacteria and not marketing concepts such as 'healthy choices'.

5,6-dihydro-9,10-dimethoxybenzo[g]-1,3-benzodioxolo[5,6-a]quinolizinium {Berberine} 1.5 gram/day
 (2->1)-beta-D-fructofuranan {Inulin} 32 gram/day
 arabinogalactan {arabinogalactan} 21 gram/day
 Avena sativa x Hordeum vulgare {barley,oat}
 bacillus
 bacillus subtilis {B.Subtilis } 10 BCFU/day
 bacillus,lactobacillus,streptococcus,saccharomyces probiotic
 foeniculum vulgare,fennel
 fructo-oligosaccharides 15 gram/day
 fruit
 fruit/legume fibre
 Grape Polyphenols {Grape Flavonoids}
 grapes

Hordeum vulgare {Barley} 60 gram/day
 Hydrastis canadensis {Goldenseal}
 Lactocaseibacillus rhamnosus {l. rhamnosus} 48 BCFU/day
 Lactobacillus plantarum {L. plantarum} 60 BCFU/day
 Malus domestica {apple}
 nuts
 oligosaccharides {oligosaccharides}
 origanum vulgare {oregano}
 Outer Layers of Triticum aestivum {Wheat Bran}
 pectin {pectin}
 Prunus dulcis {Almonds} 90 gram/day
 resveratrol-pterostilbene {grapes, blueberries} 2 gram/day
 walnuts 75 gram/day

Retail Probiotics

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

Global Healing Center / FloraTrex
 Next Generation
 garden of life / primal defense
 naturopathica (au) / gastrohealth probiotic dairy free 50 billion
 naturopathica (au) / gastrohealth probiotic dairy free 20 bcfu
 bioglan bio (au) / happy probiotic 100
 bioglan bio (au) / happy probiotic 50
 nature's way (au) / restore probiotic bowel & colon health 30s
 nature's way (au) / restore probiotic 100 billion
 hyperbiotics / pro-15
 jarro formula / jarro-dophilus original
 jarro formula / ideal bowel support® lp299v®
 1 md / complete probiotics platinum
 renew life / ultimate flora
 naturopathica (au) / gastrohealth probiotic ultimate daily care 100billion
 Realdose
 blackmore (au) / probiotics+ eczema relief
 Jetson (US) / Mood Probiotics
 ASEA VIA / BIOME
 OMNI-BIOTIC®/ 10 AAD
 OMNI-BIOTIC®/ TRAVEL
 Thryve Inside/ L.Reu,Rham,Casi; B.Lactis
 7 AM Ultra Probiotics
 LiveWell Nutrition / Pro-45
 Physis / Advance Probiotics
 Swiss BioEnergetics / Full Spectrum Probiotic Defence
 Advanced Bio-Cultures / Advance Multi Strain Probiotics
 Physician Choice /60 Billion Probiotics
 Garden of Life / Dr. Formulated Once Daily Women's
 Bio Schwartz / Advance Strength Probiotics (40 BCFU)
 Ombre / Mood Enhancer
 Ombre / Healthy Gut
 Krauterhaus / Lactopro
 Dr. Mercola / Complete Probiotics
 Lake Avenue Nutrition / Probiotics 10 Strain Blend
 HLH BIOPHARMA(DE) / LACTOBACT ® PREMIUM
 HLH BIOPHARMA(DE) / LACTOBACT ® 60PLUS
 MegaFood / MegaFlora
 custom probiotics / four strain lactobacilli
 custom probiotics / six strain probiotic powder
 lifted naturals / mood boosting probiotic
 bioray / cytoflora
 seed / female version
 seed / male version
 quantum wellness / restora flora
 solaray / microbiome probiotic colon formula
 udo's choice /super 8 gold
 fürstenmed / lacto-bifido
 jarro formulas / jarro-dophilus eps
 vita miracle / ultra-30 probiotics
 young living/life 9
 optibac / for every day
 probiotic pur (de) / realdose nutrition
 vinco / probiotic eight 65

theramedix / probiotic
biospec / probiotic-5
zint nutrition / probiotic collagen +
organic 3 / primal gut
up4 / ultra
up4 / women's
elixa / probiotic
jarrow formulas / bifidus balance® + fos
jarrow formulas / jarro-dophilus® ultra
newrhythm / probiotics 20 stains
Wakunaga / Max Probiotic
natviehealthcare.com/Renewbiome Mega
Symprove™
Bioflora (Mx) / BIOFLORA / 30 BILLION 10 strains
Resbiotic / resB® Lung Support
SuperSmart / Full Spectrum Probiotic Formula
SuperSmart / Candalb
SuperSmart / Derma Relief
ISCON Elegance/ Ochek Capsule 10
Bromatech(IT) / FEMELLE
Northwest Natural Products / PBB
Law of Nature / Best Days Formula
Floradapt Cardio
Floradapt Gut Comfort
HMF Metabolic
Immune Defense Daily Chewable Probiotic
Nature's Lab Cardio
Nature's Lab Intensive GI
Pregnancy Care Probiotic
Probiotic 10 Billion Active Cells Daily Maintenance
ProGoes® Forte
Purica Probiotic Cardio
Purica Probiotic Intensive GI
SuperSmart / Lactobacillus Plantarum Postbiotic (Pasturized)
SuperSmart / Lactoxira
SuperSmart / Oral Health
SuperSmart / Vaginal Health
Energybalance / ColoBiotica 28 Colon Support
SuperSmart / Probio Forte
SuperSmart / Bacillus Subtilis
Bioflora(MX) / Woman
Bulk Probiotics / L. Rhamnosus Probiotic Powder
Bulk Probiotics / L. Plantarum Probiotic Powder
Bulk Probiotics / Bacillus Subtilis Probiotic
UltraFlora® Immune Booster
UltraFlora® Intensive Care
Maple Life Science™ / Lactobacillus plantarum
Wakunaga / Kyo-Dophilus® Multi 9 Probiotic
Wakunaga / Pro+ Synbiotic
natviehealthcare.com/Renewbiome Bacillus
corebiotic
naturopathica (au) / gastrohealth fibrepro
naturopathica (au) / gastrohealth probiotic daily care
naturopathica (au) / gastrohealth probiotic adults 50+
naturopathica (au) / gastrohealth women's probiotic with cranberry
amy meyers / primal earth probiotic
douglas laboratories / multi probiotic 40 billion
up4 / adult

organic 3 / primal soil
powerlabs (au) / ultra blend
bio-botanical research / profiora4r restorative probiotic
reserveage nutrition / beautiflora
just for tummies / live bacteria
bravo europe / starter and complex
bravo europe / freeze-dried bravo
microbiome labs / hu58
microbiome labs / restorflora
organic 3 / gutpro
optibac / for your cholesterol
optibac / for those on antibiotics
optibac / bifidobacteria & fibre
optibac / for women
global health trax / threelac
jarrow formulas / jarro-dophilus mood
cytoplankton(uk) / dentavital bifidophilus
klair labs / biospora
spain (es) / ns florabiotic instant
spain (es) / I3.1
spain (es) / vivomixx
spain (es) / aquilea intimus
spain (es) / muvagyn probiotico
spain (es) / ns defenbiotic kids
bio-k+
goodbelly drink
visbiome
jamieson (can) / probiotic 10 bcfu
mwsb / candida yeast support
ferring / vsl#3
fairvital / microflora basic
enviromedica terraflora sbo probiotic
nature's instincts / ultra spore probiotic
nature's bounty / probioti 10
jarrow formulas / fem dophilus
vitamin angels / just thrive
microbiome labs / megasporebiotic
perfect pass / perfect pass probiotic bacillus spore
aor / probiotic-3
renew life men's probiotic - ultimate
ProbioMax® Daily DF
HLH BIOPHARMA(DE) / LACTOBACT ® LDL-CONTROL
CVSHealth / Daily Probiotic
Ombre / Metabolic Booster
Ombre / Endless Energy
Ombre / Heart Health
Ombre / Ultimate Immunity
Ombre / Restore
Ombre / Harmony
INVIVO THERAPEUTICS / Bio.Me IB +
BIO-BOTANICAL RESEARCH / Megacidin
NOW FOODS / Clinical GI Probiotic
RepHresh / Pro-B Probiotic Supplement for Women
Prescript-Assist®/SBO Probiotic
Metabolics / Lactobacillus Plantarum Powder
Metabolics / Lactobacillus Rhamnosus Powder
Invivo / Bio.Me Femme UT
JGL / Lactogyn

ImmuneBiotech Medical Sweden AB / GutMagnific®
Bromatech (IT) / Adomelle
Bromatech (IT) / Lautoselle
Bromatech (IT) / Psicobrain
Bromatech (IT) / Ramnoselle
Bromatech (IT) / Serobiome
Smidge / Sensitive Probiotic
Biorela® Daily
Wholesome Wellness / Raw Probiotic
Nutrition Essentials / Probiotic (900 BCFU)
Sash Vitality / Bio-Cultures Probiotics for Adults
NaturalPharma / Profit Probiotics
Seeking Health / Probiota HistaminX
CustomProbiotics.com / L. Plantarum Probiotic Powder
CustomProbiotics.com / L. Rhamnosus Probiotic Powder
Jetson / Gut Prep
blackmore (au) / probiotics+ womens flora balance
blackmore (au) / probiotics+ daily health
Nu U (uk) / Bio-Cultures Complex
Windlove Probiotics / Ecologic®825
Jetson / FIT
custom probiotics / d-lactate free probiotics powder
jarrow formulas / fem-dophilus®
nature's way (au) / restore probiotic daily health 90s
nature's way (au) / restore probiotic 30 billion 30s
blackmores (au) / probiotics + adults daily (90 capsules)
blackmores (au) / probiotics+ immune defence

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.

5,7-Dihydroxy-2-(4-hydroxyphenyl)-4H-1-benzopyran-4-one

{Apigenin }

Animal cohabitation {Owning a Pet}

Azadirachta indica {Neem}

chlorhexidine

Cola aspartame {Diet Cola}

Ethyl alcohol {Grain alcohol}

glycyrrhizic acid {licorice}

Laurencia tristicha {Marine red algae}

Menta × piperita {peppermint}

Metha family {Mint}

N-[2-(5-methoxy-1H-indol-3-yl)ethyl]acetamide {Melatonin}

Oenothera biennis {Evening Primrose Oil}

Propolis {Bee glue}

Prunus mume {Umeboshi}

Sodium Chloride {Salt}

β-(1?4)-linked D-glucosamine and N-acetyl-D-glucosamine

{Chitosan}

tea

Sample of Literature Used

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

Improving Growth Dynamics of Faecalibacterium prausnitzii by Exposure to Prebiotics.

International journal of molecular sciences , Volume: 27 Issue: 4 2026 Feb 10

Authors Ahmed S,Roberts KD,McCormick TS,Ghannoum MA

The effect of fruit extracts containing phenolic compounds on the survivability of Streptococcus mutans: an in vitro study.

European archives of paediatric dentistry : official journal of the European Academy of Paediatric Dentistry , 2026 Jan 19

Authors Zornitzki K,Bar DZ,Shmerling A,Blumer S,Berenstein Ajzman G

Therapeutic Mechanisms of Lactiplantibacillus plantarum NXU0014 Against Chronic Alcohol-Induced Liver Injury Mediated by Gut-Liver Axis Modulation.

Molecular nutrition & food research , Volume: 70 Issue: 1 2026 Jan

Authors Ji Q,Wang Y,Huo L,Qiao C,Li F,Yang F,Pan L

Nanogel-encapsulated Rosa roxburghii Tratt fruit polyphenols ameliorated ulcerative colitis by regulating gut microbiota and PI3K/Akt and NF- κ B pathways.

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Authors Long M,Wang H,Zhang F,Ran Y,Li Y,Luo J,Chen Z,Tian Z,Tan S,Liu X

Structural characterization and prebiotic activity of oligosaccharides derived from sesame meal produced by different oil extraction methods.

Food research international (Ottawa, Ont.) , Volume: 225 2026 Feb 1

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Authors Khan A,Mushtaq M,Shah M,Khan RU,Alonaizan R,Naz S,Abudabos A,Israr M

Energy-sparing effect of oregano (Origanum vulgare subsp. hirtum) essential oil and its mixtures in broilers: Improved feed efficiency via optimized intestinal health.

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Lactisacibacillus rhamnosus MS27 Potentially Prevents Ulcerative Colitis Through Modulation of Gut Microbiota.

International journal of molecular sciences , Volume: 26 Issue: 23 2025 Nov 25

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Green Synthesis of Copper, Iron and Silver Nanoparticles from Origanum vulgare L. subsp. vulgare; Characterization, In Vitro Enzyme Inhibition, Antimicrobial Activities and In Silico Molecular Docking Studies.

Molecular biotechnology , 2025 Nov 29

Authors Aragan A,Imece A,Yigit A,Basar Y,Ertas M,Samsa CG,Ozturk D,Genç H

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Gut Microbiota Dysbiosis and Associated Gut Health Outcomes Among Alcohol Consumers in Musanze District of Rwanda: A Cross-Sectional Study.

The East African health research journal , Volume: 9 Issue: 1 2025

Authors Higiyo C,Habyarimana T,Izere C,Yadufashije C,Niyonzima FN

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International journal of molecular sciences , Volume: 26 Issue: 19 2025 Sep 25

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Comparative Molecular Profiling and Bioactivity Analysis of Algerian Propolis: Antioxidant, Antibacterial Activities, and In Silico NRF2-KEAP1 Pathway Modulation.

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Authors Xu P, Mageswary MU, Nisaa AA, Samsudin SB, Rusdi NIBM, Jerip ARA, Oon CE, Sany SB, Tan CS, Zhu ZH, Liong MT

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Frontiers in immunology , Volume: 16 2025

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Authors Bonnet N,Schmidt FN,Baruchet M,Migliavacca E,Ramos-Nieves M,Favre L,Brassart D,Mletzko K,Busse B,Sietse-Jan K,Horcajada MN

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