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 histidine decarboxylase by impacting the bacteria listed on <u>KEGG: Kyoto Encyclopedia of Genes and Genomes</u>. Suggestions should *only be done after a review* by a medical professional factoring in patient's conditions, allerges 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 Tax	conomy ID	Bacteria Name	Rank	Shift Taxonomy ID
Sorangium cellulosum	species		56	Kitasatospora setae	species	2066
Francisella tularensis subsp.	subspecies		264	Halomonas elongata	species	2746
novicida	Subspecies	•	204	Francisella philomiragia	species	28110
Pseudomonas fluorescens	species		294	Vibrio nigripulchritudo	species	28173
Methylococcus capsulatus	species		414	Arcobacter nitrofiglis	species	28199
Acinetobacter baumannii	species		470	Ornithobacterium rhinotracheale	species	28251
lodobacter fluviatilis	species		537	Streptantibioticus cattleyicolor	species	29303
Klebsiella aerogenes	species		548	Aeromonas salmonicida subsp.	subspecies	29491
Dickeya chrysanthemi	species		556	salmonicida	Subspecies	23431
Klebsiella pneumoniae	species		573	Vibrio tubiashii	species	29498
Aeromonas hydrophila	species		644	Staphylococcus saccharolyticus	species	33028
Aeromonas salmonicida	species		645	Gloeobacter violaceus	species	33072
Vibrio vulnificus	species		672	Streptomyces subrutilus	species	36818
Vibrio gazogenes	species		687	Xenorhabdus poinarii	species	40577
Plesiomonas shigelloides	species		703	Micromonospora aurantiaca	species	47850
Haemophilus influenzae	species		727	Acinetobacter pittii	species	48296
Bacteroides fragilis	species		817	Tatumella citrea	species	53336
Fusobacterium varium	species		856	Dactylosporangium vinaceum	species	53362
Fusobacterium ulcerans	species		861	Nocardiopsis alba	species	53437
Cellulophaga lytica	species		979	Fructilactobacillus lindneri	species	53444
Solitalea canadensis	species		995	Raoultella omithinolytica	species	54291
Leptolyngbya boryana	species		1184	Erwinia persicina	species	552 <u>11</u>
Clostridium perfringens	species		1502	Vibrio anguillarum	species	55601
Paenidostridium sordellii	species		1505	Streptomyces platensis	species	58346
Clostridium tetani	species		1513	Desulfobacca acetoxidans	species	60893
Acetivibrio thermocellus	species		1515	Shewanella woodyi	species	60961
Clostridium baratii	species		1561	Serratia rubidaea	species	61652
				Zobellia galactanivorans	species	63186
Limosilactobacillus reuteri	species		1598	Olympia and Carlotter		
Fructilactobacillus fructivorans	species		1614		species	68203
Limosilactobacillus vaginalis	species			Musicola paradisiaca	species	69223
Streptomyces davuligerus	species		1901	Aliivibrio wodanis	species	80852

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 stablize 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'.

anise 450 mgm/day
chitosan,(sugar) 3 gram/day
cinnamon (oil. spice) 6 gram/day
coriander oil
Curcumin 3 gram/day
foeniculum vulgare,fennel

ginger
nigella sativa seed (black cumin)
oregano (origanum vulgare, oil) |
rosmarinus officinalis,rosemary
syzygium aromaticum (clove)
thyme (thymol, thyme oil)
trachyspermum ammi, Ajwain

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.

wheat bran

arabinogalactan (prebiotic)

barley

inulin (prebiotic)

iron

jerusalem artichoke (prebiotic)

lactulose navy bean Pulses resistant starch
resveratrol (grape seed/polyphenols/red wine)
saccharomyces boulardii (probiotics)
sesame cake/meal
Slippery Elm
vegetarians
walnuts

Sample of Literature Used

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

Spices as Sustainable Food Preservatives: A Comprehensive Review of Their Antimicrobial Potential.

Pharmaceuticals (Basel, Switzerland), Volume: 16 Issue: 10 2023 Oct 12

Authors Sulieman AME, Abdallah EM, Alanazi NA, Ed-Dra A, Jamal A, Idriss H, Alshammari AS, Shommo SAM

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

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

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

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 Canigia L,Pérez GT

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

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

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Monitoring <i>in vitro</i> 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.

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Authors Guo JR, Dong XF, Liu S, Tong JM

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Journal of microbiology and biotechnology, Volume: 26 Issue: 10 2016 Oct 28

Authors Ruengsomwong S,La-Ongkham O,Jiang J,Wannissorn B,Nakayama J,Nitisinprasert S

In vitro antimicrobial activity of five essential oils on multidrug resistant Gram-negative clinical isolates.

Journal of intercultural ethnopharmacology, Volume: 5 Issue: 3 2016 Jun-Aug

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Survey of the Antibiofilm and Antimicrobial Effects of Zingiber officinale (in Vitro Study).

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Gas chromatography coupled with mass spectrometric characterization of Curcuma longa: Protection against pathogenic microbes and lipid peroxidation in rat`s tissue homogenate.

Pakistan journal of pharmaceutical sciences, Volume: 29 Issue: 2 2016 Mar

Authors Hassan W,Gul S,Rehman S,Kanwal F,Afridi MS,Fazal H,Shah Z,Rahman A,da Rocha JB

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Carbohydrate polymers, Volume: 131 2015 Oct 20

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Antimicrobial Impacts of Essential Oils on Food Borne-Pathogens.

Recent patents on food, nutrition & agriculture, Volume: 7 Issue: 1 2015

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Modulation of the intestinal microbiota is associated with lower plasma cholesterol and weight gain in hamsters fed chardonnay grape seed flour.

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In vitro fermentation of lactulose by human gut bacteria.

Journal of agricultural and food chemistry , Volume: 62 Issue: 45 2014 Nov 12

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Fermentable non-starch polysaccharides increases the abundance of Bacteroides-Prevotella-Porphyromonas in ileal microbial community of growing pigs.

Animal: an international journal of animal bioscience, Volume: 8 Issue: 11 2014 Nov

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Strict vegetarian diet improves the risk factors associated with metabolic diseases by modulating gut microbiota and reducing intestinal inflammation.

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Journal of environmental biology , Volume: 32 Issue: 1 2011 Jan

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Antimicrobial activity of essential oils and other plant extracts.

Journal of applied microbiology, Volume: 86 Issue: 6 1999 Jun

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Journal of general microbiology, Volume: 128 Issue: 2 1982 Feb

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Generative Bioinformatics, Volume: Issue: 2014 Jun

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