

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 Increasing Butanoic acid | Butanoate Butyrate Butyric acid C4H8O2 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

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Bacteria being targeted by suggestions.

These bacteria levels were deemed atypical

Bacteria Name	Rank	Shift	Taxonomy ID	Bacteria Name	Rank	Shift	Taxonomy ID
Methylocystis parvus	species		134	Brevibacillus laterosporus	species		1465
Azospirillum lipoferum	species		193	Peribacillus simplex	species		1478
Bradyrhizobium japonicum	species		375	Rubrivivax gelatinosus	species		28068
Bradyrhizobium sp.	species		376	Porphyromonas asaccharolytica	species		28123
Citrobacter koseri	species		545	Vibrio nigripulchritudo	species		28173
Citrobacter freundii	species		546	Pectobacterium atrosepticum	species		29471
Escherichia fergusonii	species		564	Beijerinckia indica subsp. indica	subspecies		31994
Shigella sonnei	species		624	Phascolarctobacterium faecium	species		33025
Yersinia intermedia	species		631	Leptothrix cholodnii	species		34029
Edwardsiella tarda	species		636	Citrobacter amalonaticus	species		35703
Vibrio harveyi	species		669	Rhodovulum sulfidophilum	species		35806
Aggregatibacter				Caldibacillus thermoamylovorans	species		35841
actinomycetemcomitans	species		714	Porphyromonas cangingivalis	species		36874
Pasteurella dagmatis	species		754	Methylobacterium mesophilicum	species		39956
Rodentibacter pneumotropicus	species		758	Streptococcus equi subsp.			
Porphyromonas gingivalis	species		837	zooepidemicus	subspecies		40041
Fusobacterium gonidiaformans	species		849	Rubrobacter radiotolerans	species		42256
Fusobacterium mortiferum	species		850	Vreelandella venusta	species		44935
Fusobacterium varium	species		856	Streptococcus cristatus	species		45634
Fusobacterium periodonticum	species		860	Bibersteinia trehalosi	species		47735
Fusobacterium ulcerans	species		861	Serratia fonticola	species		47917
Megasphaera elsdenii	species		907	Brevibacillus agri	species		51101
Nitrobacter hamburgensis	species		912	Thalassovita gelatinovora	species		53501
Rhodospirillum rubrum	species		1085	Brevibacillus choshinensis	species		54911
Streptococcus pyogenes	species		1314	Brevibacillus formosus	species		54913
Streptococcus anginosus	species		1328	Pectobacterium wasabiae	species		55208
Streptococcus canis	species		1329	Brenneria nigrifluens	species		55210
Streptococcus uberis	species		1349	Brenneria rubrifaciens	species		55213
Brevibacillus brevis	species		1393	Edwardsiella ictaluri	species		67780
Paenibacillus polymyxa	species		1406	Citrobacter farmeri	species		67824
Peribacillus psychrosaccharolyticus	species		1407	Citrobacter werkmanii	species		67827

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'.

allium sativum {garlic} 4 gram/day

Amorphophallus konjac {Konjaku flour}

Azadirachta indica {Neem} 120 mg/day

Bifidobacterium animalis {B. animalis}

bifidobacterium lactis,streptococcus thermophilus probiotic

Bovine Milk Products {Dairy}

Caffeine

Cichorium intybus {Chicory} 1800 mg/day

Cinnamomum zeylanicum {Ceylon Cinnamon} 6 gram/day

Coffee

Cola aspartame {Diet Cola}

Eucalyptus {Gum Tree}

foeniculum vulgare,fennel

gallic acid {gallate}

green tea

Lactcaseibacillus casei {L. casei} 48 BCFU/day

lactobacillus paracasei,lactobacillus acidophilus,bifidobacterium animalis

Lactobacillus plantarum {L. plantarum} 60 BCFU/day

lactobacillus rhamnosus gg,bifidobacterium animalis lactis

,lactobacillus paracasei {cvs maximum strength probiotic}

Limosilactobacillus fermentum {L. fermentum} 12 BCFU/day

Menta × piperita {peppermint}

rosmarinus officinalis {rosemary}

Salvia officinalis {Sage}

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

{Chitosan} 3 gram/day

syzygium aromaticum {clove}

tea

Theobroma cacao {Cacao} 20 gram/day

Thymus vulgaris {thyme}

Trametes versicolor {Turkey tail}

yogurt

Retail Probiotics

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

douglas laboratories / multi probiotic 40 billion
 visbiome
 Physician Choice / 60 Billion Probiotics
 theramedix / probiotic
 Winclove Probiotics / Ecologic®825
 Jetson (US) / Immunity Probiotics
 spain (es) / vivomixx
 renew life men's probiotic - ultimate
 ferring / vsl#3
 nature's bounty / probioti 10
 fairvital / microflora basic
 Invivo / Bio.Me Femme UT
 jarow formula / ideal bowel support® lp299v®
 SuperSmart / Probio Forte
 SuperSmart / Lactoxira
 organic 3 / gutpro
 Bromatech (IT) / Milonet
 PharmExtracta (IT) / INatal Sachets
 NaturalPharma / Profit Probiotics
 Bio Schwartz / Advance Strength Probiotics (40 BCFU)
 UltraFlora® Intensive Care
 Pädia GmbH (DE)/Mambiotic Kapseln
 Floradapt Cardio
 HLH BIOPHARMA(DE) / LACTOBACT ® OMNI FOS
 spain (es) / lactanza hereditum
 Purica Probiotic Cardio
 ecology_allergycare
 Genesis Bifidobacterium Complex BB Probiotic
 Maple Life Science™ / Lactobacillus plantarum
 HLH BIOPHARMA(DE) / LACTOBACT ® LDL-CONTROL
 BioGaia / Elactia
 anabolic laboratories / probiotic complete
 klair labs / target gb-x
 Materna® Opti-Lac® Breast Feeding Support
 Lab One / N ° 1 SportBiotic
 Jetson / FIT
 Seeking Health / Probiota HistaminX
 reg'activ / immune & vitality
 Ombre / Ultimate Immunity
 Purica Probiotic Intensive GI
 optibac / for your cholesterol
 ProbioMax® Daily DF
 SuperSmart / Lactobacillus Plantarum Postbiotic (Pasturized)
 Floradapt Gut Comfort
 Realdose
 Nature's Lab Intensive GI
 Bulk Probiotics / L. Fermentum Probiotic Powder
 CustomProbiotics.com / L. Casei Probiotic Powder
 CustomProbiotics.com / S. Thermophilus Probiotic Powder
 Smidge / Sensitive Probiotic
 Metabolics / Lactobacillus Plantarum Powder
 Nature's Lab Cardio
 Bromatech (IT) / Rotanella plus
 Metabolics / Streptococcus Thermophilus Powder

Immune Defense Daily Chewable Probiotic
probiotic pur (de) / realdose nutrition
VSL Pharmaceuticals / Oxadrop
up4 / adult
nature's way (au) / restore probiotic bowel & colon health 30s
Bulk Probiotics / L. Plantarum Probiotic Powder
spain (es) / I3.1
Good Start® by Gerber® Breastfeeding Comfort Plus Probiotics
Thryve LPCasei Th1, LPCasei Th2,LFerm IBF1, Lacidoph
goodbelly drink
Bulk Probiotics / L. Casei Probiotic Powder (Candida Support)
Maple Life Science™ / Lactobacillus fermentum
Bromatech (IT) / Citogenex
ImmuneBiotech Medical Sweden AB / GutMagnific®
naturopathica (au) / gastrohealth probiotic dairy free 20 bcfu
HMF Metabolic
CustomProbiotics.com / L. Plantarum Probiotic Powder
UltraFlora® Immune Booster
Bromatech (IT) / Adomelle

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.

5,6-dihydro-9,10-dimethoxybenzo[g]-1,3-benzodioxolo[5,6-a]quinolizinium {Berberine}
2H-1?6,2-benzothiazol-1,1,3-trione {Saccharin}
 α -Amino-3-indolepropionic acid {Tryptophan}
arabinogalactan {arabinogalactan}
Avena sativa x Hordeum vulgare {barley,oat}
Ferrum {Iron Supplements}
fruit
fruit/legume fibre
grapes
high red meat
Hordeum vulgare {Barley}
Hydrastis canadensis {Goldenseal}
Lactocaseibacillus rhamnosus {L. rhamnosus}
lactobacillus rhamnosus gg

Linum usitatissimum {Flaxseed}
Mixture of Vitamin B? {B Vitamins}
oligosaccharides {oligosaccharides}
Outer Layers of Triticum aestivum {Wheat Bran}
Panax ... {Ginseng}
pectin {pectin}
Poly[β -D-xylopyranose(1->4)] {Xylan}
Polydextrose {polydextrose}
pseudo-cereals {amaranth,quinoa, taro,buckwheat}
Pulses, Beans
red wine
 β -glucan {Beta-Glucan}
Ulmus rubra {slippery elm}
vegetarians
wheat

Sample of Literature Used

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

- Larch Arabinogalactan Alleviates Colitis by Modulating Gut Microbiota and Promoting Bacteroides thetaiotaomicron.
Journal of agricultural and food chemistry , Volume: 73 Issue: 47 2025 Nov 26
 Authors Zhang S,Sun Y,Bian X,Liu F,Nie S
- Phytochemical analysis and bioactive potential of Moringa, Eucalyptus, and Nerium extracts against microbial, diabetic, inflammatory, and oxidative stress challenges.
3 Biotech , Volume: 15 Issue: 11 2025 Nov
 Authors Challa BR,Kantamneni GD,Suravajhala M,Vadlamudi S,Manne M,Chathyushya KB
- Lactobacillus rhamnosus Ameliorates Dyslipidemia and Liver Steatosis in a Rat Model Fed High-Fat Diet.
Gastroenterology research and practice , Volume: 2025 2025
 Authors Liao YT,Huang J,Lin BR,Liang JT,Huang KW
- The addition of encapsulated Bacillus subtilis, Enterococcus faecium, and Lactobacillus plantarum postbiotics, either alone or with inulin, improves slaughter weight, gut function, and microbiota in broilers.
BMC veterinary research , Volume: 21 Issue: 1 2025 Oct 14
 Authors Atan Çirpici H,Kirkpınar F
- Garlic essential oil alleviate oxidative stress, inflammation and microbiota dybiosis from small intestinal damage in lipopolysaccharide-challenged weaned piglets.
Porcine health management , Volume: 11 Issue: 1 2025 Sep 30
 Authors Chen Y,Song W,Sun C,Chen Y,Chen X,Chen S,Chen Q,Wang K
- Multi-omics analysis of a prebiotic intervention with pectin in lipid transfer proteins (LTPs) allergic patients.
Carbohydrate polymers , Volume: 369 2025 Dec 1
 Authors Gómez F,Pérez-Sánchez N,Macías-Camero A,Núñez R,Contreras N,Cañas JA,Jiménez-Sánchez IM,Díez-Echave P,Barbas C,Guéant JL,Barber D,Vieths S,Scheurer S,Villaseñor A,Rodríguez-Nogales A,Mayorga C,Torres MJ
- Lactobacillus plantarum and Lactobacillus brevis alleviate enterotoxigenic Escherichia coli-induced intestinal inflammation and stabilize intestinal microorganisms and serum metabolites in piglets.
Animal nutrition (Zhongguo xu mu shou yi xue hui) , Volume: 22 2025 Sep
 Authors Han X,Gao R,Ding S,Yao H,Fang J,Liu G
- Mango by-Product-Based High-Fiber Confectionery Attenuates Liver Steatosis and Alters Gut Microbiota in High-Fat Diet-Fed Rats.
Molecular nutrition & food research , 2025 Aug 30
 Authors Barbosa Y,Gaytán-Martínez M,de Los Ríos-Arellano EA,Chavez-Santoscoy RA,Hinojosa-Alvarez S,Antunes-Ricardo M,Luzardo-Ocampo I,Ramírez-Jiménez AK
- Rosemary Extract: Phytochemical Composition and Potential for Eliminating Polymicrobial Biofilm of Candida albicans and Multidrug-Resistant Bacteria.
Biotech (Basel (Switzerland)) , Volume: 14 Issue: 3 2025 Aug 13
 Authors Cintra TMF,Menezes RT,de Carvalho LS,de Miguel Nazario L,Hantao LW,Marcucci MC,Oliveira LD,Meccatti-Domiciano VM
- Four Dairy Products Mitigates Sarcopenia in Mice by Modulating Muscle Inflammation, Autophagy, and Protein Degradation.
Food science & nutrition , Volume: 13 Issue: 7 2025 Jul
 Authors Sun M,Wu T,Wang R,Ma Y,Han Y,Hou Y,Zhang Z
- The potential of cell-free supernatants from Lactocaseibacillus paracasei B1 and Lactiplantibacillus plantarum O24 as antioxidant and antimicrobial agents.
Food chemistry , Volume: 492 Issue: Pt 2 2025 Jul 3
 Authors Keska P,Zielinska D,Karbowiak M,Kruk M,Lisiecka U,Stadnik J
- Incorporation of Azadirachta indica kernel in the diet of guinea pigs: effects on digestibility and caecal health.
Tropical animal health and production , Volume: 57 Issue: 6 2025 Jun 21
 Authors Djoumessi Tobou GF,Kenfack LBM,Miégué E,Fokom DW,Kuitche HM,Kesnel ZDD,Tendonkeng F,Clerge T,Hornick JL
- Impact of the Probiotic on the Modulation of Vaginal Bacterial and Fungal Microbiota in HPV-Positive Women.
Molecular nutrition & food research , 2025 Jun 11
 Authors Xu P,Uma Mageswary M,Nisaa AA,Balasubramaniam SD,Samsudin SB,Rusli NIBM,Jerip ARA,Oon CE,Bakar MHA,Tan JJ,Roslan FF,Kadir MN,Ismail EHBE,Sany SB,Tan CS,Liong MT
- Impact of Iron Deficiency on the Growth and Bioelectrical Profile of Different Gut Bacteria.
MicrobiologyOpen , Volume: 14 Issue: 3 2025 Jun
 Authors Quarta E,Bourqqa-Ramzi M,Muñoz-Rodríguez D,García-Esteban MT,Murciano-Cespedosa A,Mateos González Á,Conejero-Meca FJ,Lombardo-Hernandez J,Mansilla-Guardiola J,Baroni S,Geninatti Crich S,Geuna S,Munaron L,Chiabrand

D,Herrera-Rincon C

Synergistic Biocidal Effects of Curcumin, Chitosan, and Nickel Titanate-Based Nanohybrids for Enhanced Antibacterial and Anticancer Therapies.

ACS applied bio materials , 2025 May 14

Authors Jeyasingh E,Panneerselvam HM,Chandrasekaran K,Moorthy S

Thyme oil-Loaded chitosan microparticles: an antibacterial approach against pathogenic bacteria.

3 Biotech , Volume: 15 Issue: 5 2025 May

Authors Thakur A,Sharma K

Selenium-enriched green tea extracts: chemical constituents and effects on antioxidant and anti-inflammatory factors and four major intestinal flora in mice with intestinal disorders.

Journal of the science of food and agriculture , 2025 Apr 15

Authors Yang H,Tao H,Xu C,Song J,Teng C,Pan C,Wei S

Electrostatically assembled maghemite nanoparticles-Lactobacillus plantarum: A novel hybrid for enhanced antioxidant, antimicrobial, and antibiofilm efficacy.

Bioresource technology , 2025 Apr 12

Authors Shingade JA,Padalkar NS,Shin JH,Kim YH,Park TJ,Park JP,Patil AR

The Development and Comparative Evaluation of Rosemary Hydroalcoholic Macerate-Based Dermatocosmetic Preparations: A Study on Antioxidant, Antimicrobial, and Anti-Inflammatory Properties.

Gels (Basel, Switzerland) , Volume: 11 Issue: 3 2025 Feb 20

Authors Sahlabgi A,Lupuliasa D,Stanciu G,Lup?or S,Vlaia LL,Rotariu R,Predescu NC,Radulescu C,Olteanu RL,Stanescu SG,Hincu L,Mititelu M

Comparative Evaluation of Different Mint Species Based on Their In Vitro Antioxidant and Antibacterial Effect.

Plants (Basel, Switzerland) , Volume: 14 Issue: 1 2025 Jan 2

Authors Sfaxi A,Tavaszi-Sárosi S,Flórián K,Patonay K,Radácsi P,Juhász Á

The Molecular Weight of Enzymatically Modified Pectic Oligosaccharides from Apple Pomace as a Determinant for Biological and Prebiotic Activity.

Molecules (Basel, Switzerland) , Volume: 30 Issue: 1 2024 Dec 26

Authors Wilkowska A,Nowak A,Motyl I,Oracz J

Oat Beta-Glucans Modulate the Gut Microbiome, Barrier Function, and Immune Responses in an In Vivo Model of Early-Stage Colorectal Cancer.

International journal of molecular sciences , Volume: 25 Issue: 24 2024 Dec 19

Authors Guzowska M,Dziendzikowska K,Kopiasz L,Gajewska M,Wilczak J,Harasym J,Czerwinska M,Gromadzka-Ostrowska J

Investigating the properties and antibacterial, antioxidant, and cytotoxicity activity of postbiotics derived from Lactocaseibacillus casei on various gastrointestinal pathogens in vitro and in food models.

GMS hygiene and infection control , Volume: 19 2024

Authors Asadi Z,Abbasi A,Ghaemi A,Montazeri EA,Akrami S

Microencapsulation of Azadirachta indica oil and Tinospora cordifolia extracts blend for single-use applications.

Heliyon , Volume: 10 Issue: 20 2024 Oct 30

Authors Khan O,Chandra Das S,Bedoura S

Ultrasonic depolymerization of pomegranate peel pectin: Effect of sonication time on antioxidant, α-amylase inhibitory, and prebiotic properties.

Food chemistry: X , Volume: 24 2024 Dec 30

Authors Bachari S,Ghaderi-Ghahfarokhi M,Gavilighi HA,Zarei M

Limosilactobacillus Fermentum ZS09 Can Improve Antibiotic-Induced Motor Dysfunction in Mice by Regulating the Brain-Gut Functions.

Journal of inflammation research , Volume: 17 2024

Authors Yang Y,Zhao Y,Lei H,Tan X

GC-MS Characterization and Bioactivity Study of Eucalyptus globulus Labill. (Myrtaceae) Essential Oils and Their Fractions: Antibacterial and Antioxidant Properties and Molecular Docking Modeling.

Pharmaceuticals (Basel, Switzerland) , Volume: 17 Issue: 11 2024 Nov 19

Authors Ait Benlabchir A,Fikri-Benbrahim K,Moutawalli A,Alanazi MM,Halmoune A,Benkhoulil FZ,Oubihi A,Kabra A,Hanoune E,Assila H,Quaritini ZB

Characterization of Exopolysaccharides from Lactiplantibacillus plantarum PC715 and Their Antibiofilm Activity Against Hafnia alvei.

Microorganisms , Volume: 12 Issue: 11 2024 Nov 3

Authors Tan X,Ma B,Wang X,Cui F,Li X,Li J

Probiotic-Loaded Bacterial Cellulose as an Alternative to Combat Carbapenem-Resistant Bacterial Infections.

Antibiotics (Basel, Switzerland) , Volume: 13 Issue: 11 2024 Oct 25

Authors Gutiérrez-Fernández J, Cerezo-Collado L, Garcés V, Alarcón-Guijo P, Delgado-López JM, Domínguez-Vera JM

The potency of Cupressus sempervirens and Eucalyptus globulus Essential Oils Against Antibiotic-Resistant Escherichia coli and Mammaliococcus sciuri from Diseased Animals in Tunisia.

Current microbiology , Volume: 82 Issue: 1 2024 Nov 26

Authors Dhaouadi S, Ghorbel SKB, Bouglita W, Chaari S, Dhifi W, Khrouf R, Cherif A, Elandoulsi RB

Thermosensitive Injectable Dual Drug-Loaded Chitosan-Based Hydrogels for Treating Bacterial Endometritis.

ACS biomaterials science & engineering , 2024 Nov 15

Authors Wang X, Wei Z, Wu Z, Li Y, Miao C, Cao Z

Lactobacillus rhamnosus modulates murine neonatal gut microbiota and inflammation caused by pathogenic Escherichia coli.

BMC microbiology , Volume: 24 Issue: 1 2024 Nov 6

Authors Xuan H, Umar S, Zhong C, Yu W, Ahmed I, Wheatley JL, Sampath V, Chavez-Bueno S

In-vitro and In-silico evaluation of antimicrobial and antibiofilm effect of Neem oil and Calcium hydroxide nanoparticles against Mutans Streptococci and Enterococcus faecalis isolated from endodontic infections.

Scientific reports , Volume: 14 Issue: 1 2024 Nov 2

Authors Nageeb WM, Adam SH, Hashem N, Abdelsalam N

Characterization of thyme essential oil microcapsules and potato starch/pectin composite films and their impact on the quality of chilled mutton.

Food chemistry , Volume: 464 Issue: Pt 2 2025 Feb 1

Authors Wang J, Li L, Li Y, Song Q, Hu Y, Wang Q, Lu S

Co-Encapsulation of Coffee and Coffee By-Product Extracts with Probiotic Kluyveromyces lactis.

Foods (Basel, Switzerland) , Volume: 13 Issue: 19 2024 Sep 26

Authors Tavares DG, Souza MAM, Santos TLD, Silva ADAD, Abreu DJM, Duarte WF

Exploring the antimicrobial efficacy of tea tree essential oil and chitosan against oral pathogens to overcome antimicrobial resistance.

Microbial pathogenesis , Volume: 196 2024 Nov

Authors Oliveira MS, Paula MSA, Cardoso MM, Silva NP, Tavares LCD, Gomes TV, Porto DL, Aragão CFS, Fabri RL, Tavares GD, Apolônio ACM

Candidate-Probiotic Lactobacilli and Their Postbiotics as Health-Benefit Promoters.

Microorganisms , Volume: 12 Issue: 9 2024 Sep 19

Authors Dobрева L, Atanasova N, Donchev P, Krumova E, Abrashev R, Karakirova Y, Mladenova R, Tolchikov V, Ralchev N, Dishliyska V, Danova S

Effect of Lactocaseibacillus rhamnosus IDCC 3201 on irritable bowel syndrome with constipation: a randomized, double-blind, and placebo-controlled trial.

Scientific reports , Volume: 14 Issue: 1 2024 Sep 27

Authors Kwon H, Nam EH, Kim H, Jo H, Bang WY, Lee M, Shin H, Kim D, Kim J, Kim H, Lee J, Jung YH, Yang J, Won DD, Shin M

Determinants of raffinose family oligosaccharide use in Bacteroides species.

Journal of bacteriology , Volume: 206 Issue: 10 2024 Oct 24

Authors Basu A, Adams AND, Degnan PH, Vanderpool CK

Cytotoxicity assessment and antimicrobial effects of cell-free supernatants from probiotic lactic acid bacteria and yeast against multi-drug resistant Escherichia coli.

Letters in applied microbiology , Volume: 77 Issue: 9 2024 Sep 2

Authors Ozma MA, Ghotaslou R, Asgharzadeh M, Abbasi A, Rezaee MA, Kafil HS

Integration of microbiome, metabolomics and transcriptome for in-depth understanding of berberine attenuates AOM/DSS-induced colitis-associated colorectal cancer.

Biomedicine & pharmacotherapy = Biomedecine & pharmacotherapie , Volume: 179 2024 Oct

Authors Wang M, Ma Y, Yu G, Zeng B, Yang W, Huang C, Dong Y, Tang B, Wu Z

Characterization and antioxidant activity of nano-formulated berberine and cyperus rotundus extracts with anti-inflammatory effects in mastitis-induced rats.

Scientific reports , Volume: 14 Issue: 1 2024 Aug 9

Authors Hashem AE, Elmasry IH, Lebda MA, El-Karim DRSG, Hagar M, Ebied SKM, Alotaibi BS, Rizk NI, Ghamry HI, Shukry M, Edres HA

Formulation of Garlic Essential Oil-assisted Silver Nanoparticles and Mechanistic Evaluation of their Antimicrobial Activity against a Spectrum of Pathogenic Microorganisms.

Current topics in medicinal chemistry , Volume: 24 Issue: 22 2024

Authors Sarangi A, Das BS, Panigrahi LL, Arakha M, Bhattacharya D

Berberine hydrochloride alleviates chronic prostatitis/chronic pelvic pain syndrome by modifying gut microbiome signaling.

Asian journal of andrology , 2024 Jul 16

Authors Tian YQ, Ren X, Wang J, Li X, Yin YS, Guo ZH, Qin ZL, Zeng XY

Regulations of Citrus Pectin Oligosaccharide on Cholesterol Metabolism: Insights from Integrative Analysis of Gut Microbiota and Metabolites.

Nutrients , Volume: 16 Issue: 13 2024 Jun 24

Authors Hu H, Zhang P, Liu F, Pan S

Berberine alleviates high-energy and low-protein diet-induced fatty liver hemorrhagic syndrome in laying hens: insights from microbiome and metabolomics.

Poultry science , Volume: 103 Issue: 8 2024 Aug

Authors Cheng X, Hu Y, Kuang J, Guo X, Cao H, Wu H, Hu G, Zhuang Y

Quercetin Alleviates Insulin Resistance and Repairs Intestinal Barrier in db/db Mice by Modulating Gut Microbiota.

Nutrients , Volume: 16 Issue: 12 2024 Jun 14

Authors Yuan M, Sun T, Zhang Y, Guo C, Wang F, Yao Z, Yu L

In vitro fermentation reveals an interplay relationship between oat β -glucan and human gut Bacteroides and their potential role in regulating gut cytokines.

Food & function , Volume: 15 Issue: 15 2024 Jul 29

Authors Bai J, Wang J, Fan M, Li Y, Huang L, Wang L

Nanoemulsion of cinnamon oil to combat colistin-resistant Klebsiella pneumoniae and cancer cells.

Microbial pathogenesis , Volume: 192 2024 Jul

Authors El-Sherbiny GM, Kalaba MH, Foda AM, M E S, Youssef ASE, A Elsehemy I, Farghal EE, El-Fakharany EM

Associations of plant-based foods, red and processed meat, and dairy with gut microbiome in Finnish adults.

European journal of nutrition , Volume: 63 Issue: 6 2024 Sep

Authors Maukonen M, Koponen KK, Havulinna AS, Kaartinen NE, Niiranen T, Méric G, Pajari AM, Knight R, Salomaa V, Männistö S

Anti-proliferative, antimicrobial, DFT calculations, and molecular docking 3D scaffold based on sodium alginate, chitosan, neomycin sulfate and hydroxyapatite.

International journal of biological macromolecules , Volume: 270 Issue: Pt 1 2024 Jun

Authors Dacroy S

Antimicrobial activity of Cinnamomum zeylanicum essential oil against colistin-resistant gram-negative bacteria.

International journal of environmental health research , 2024 May 2

Authors Ben Selma W, Ferjeni S, Farouk A, Marzouk M, Boukadida J

A consortium of Hordeum vulgare and gut microbiota against non-alcoholic fatty liver disease via data-driven analysis.

Artificial cells, nanomedicine, and biotechnology , Volume: 52 Issue: 1 2024 Dec

Authors Lee SB, Gupta H, Min BH, Ganesan R, Sharma SP, Won SM, Jeong JJ, Cha MG, Kwon GH, Jeong MK, Hyun JY, Eom JA, Park HJ, Yoon SJ, Lee SY, Choi MR, Kim DJ, Oh KK, Suk KT

Enterococcus faecium supplementation prevents enteritis caused by Escherichia coli in goats.

Beneficial microbes , Volume: 14 Issue: 5 2023 Oct 30

Authors Dong J, Jiang Y, Li Z, Liu K, Guo L, Cui L, Wang H, Li J

Improved antioxidative and antibacterial activity of epigallocatechin gallate derivative complexed by zinc cations and chitosan.

RSC advances , Volume: 14 Issue: 15 2024 Mar 26

Authors Zhao J, Qian D, Zhang L, Wang X, Zhang J

Characterization of feline-originated probiotics Lactobacillus rhamnosus CACC612 and Bifidobacterium animalis subsp. lactis CACC789 and evaluation of their host response.

BMC veterinary research , Volume: 20 Issue: 1 2024 Apr 1

Authors Jang HJ, Kim JA, Kim Y

Metagenomic sequencing identified microbial species in the rumen and cecum microbiome responsible for niacin treatment and related to intramuscular fat content in finishing cattle.

Frontiers in microbiology , Volume: 15 2024

Authors Yang Z, Chen X, Yu M, Jing R, Bao L, Zhao X, Pan K, Chao B, Qu M

Adjudicative efficacy of Bifidobacterium animalis subsp. lactis BLa80 in treating acute diarrhea in children: a randomized, double-blinded, placebo-controlled study.

European journal of clinical nutrition , Volume: 78 Issue: 6 2024 Jun

Authors Chen K, Jin S, Ma Y, Cai L, Xu P, Nie Y, Luo L, Yu Q, Shen Y, Zhou Z, Liu C

Screening competition and cross-feeding interactions during utilization of human milk oligosaccharides by gut microbes.

Microbiome research reports , Volume: 3 Issue: 1 2024

Authors Díaz R, Garrido D

Evaluation of the antimicrobial activity of Eucalyptus radiata essential oil against Escherichia coli strains isolated from meat products.

Brazilian journal of biology = Revista brasleira de biologia , Volume: 84 2024

Authors Santos B,Farias JHA,Simões MM,Medeiros MAA,Alves MS,Diniz AF,Soares APO,Cavalcante APTM,Silva BJN,Almeida JCS,Lemos JO,Rocha LES,Santos LC,Azevedo MLG,Vieira SWF,Araújo VE,Oliveira Filho AA

Antibacterial Potential of Essential Oils and Silver Nanoparticles against Multidrug-Resistant *Staphylococcus pseudintermedius* Isolates.

Pathogens (Basel, Switzerland) , Volume: 13 Issue: 2 2024 Feb 9

Authors Meroni G,Laterza G,Tsikopoulos A,Tsikopoulos K,Vitalini S,Scaglia B,Iriti M,Bonizzi L,Martino PA,Soggiu A

Adjunctive efficacy of *Bifidobacterium animalis* subsp. *lactis* XLTG11 for functional constipation in children.

Brazilian journal of microbiology : [publication of the Brazilian Society for Microbiology] , Volume: 55 Issue: 2 2024 Jun

Authors Chen K,Zhou Z,Nie Y,Cao Y,Yang P,Zhang Y,Xu P,Yu Q,Shen Y,Ma W,Jin S,Liu C

Antimicrobial and Anti-Biofilm Activities of *Coffea arabica* L. Against the Clinical Strains Isolated From Diabetic Foot Ulcers.

Cureus , Volume: 16 Issue: 1 2024 Jan

Authors Zubair M

Synergistic antimicrobial interaction of plant essential oils and extracts against foodborne pathogens.

Food science & nutrition , Volume: 12 Issue: 2 2024 Feb

Authors Angane M,Swift S,Huang K,Perera J,Chen X,Butts CA,Quek SY

Milk to mucus: How *B. fragilis* colonizes the gut.

Cell host & microbe , Volume: 32 Issue: 2 2024 Feb 14

Authors Olm MR,Mueller NT

Effects of Oat β -Glucan and Inulin on Alleviation of Nonalcoholic Steatohepatitis Aggravated by Circadian Disruption in C57BL/6J Mice.

Journal of agricultural and food chemistry , Volume: 72 Issue: 7 2024 Feb 21

Authors Kei N,Cheung KK,Ma KL,Yau TK,Lauw S,Wong VWS,You L,Cheung PCK

Anti-Diabetic Potentials of *Lactobacillus* Strains by Modulating Gut Microbiota Structure and β -Cells Regeneration in the Pancreatic Islets of Alloxan-Induced Diabetic Rats.

Probiotics and antimicrobial proteins , 2024 Feb 8

Authors Kumar M,Muthurayar T,Karthika S,Gayathri S,Varalakshmi P,Ashokkumar B

Biofilm-Inhibitory Activity of Wild Mushroom Extracts against Pathogenic Bacteria.

Evidence-based complementary and alternative medicine : eCAM , Volume: 2024 2024

Authors Gebreyohannes G,Sbhatu DB,Nyerere AK,Gebrehiwot AG

Comparison of the effectiveness of red ginseng herbal mouth rinse with chlorhexidine and saline in oral cancer patients: A pilot double-blinded randomized control trial.

Journal of oral and maxillofacial pathology : JOMFP , Volume: 27 Issue: 4 2023 Oct-Dec

Authors Jeddy N,Saravanan R,Natrajan R,Sai Lakshmi LJ,Ashwath V,Singhal I

The pharmaceutical effect of Korean wild ginseng residue extract on the performance, microbiota quality, cytokine expression, and the ginseng saponin content of laying hen.

Poultry science , Volume: 103 Issue: 3 2024 Mar

Authors Tajudeen H,Ha S,Hosseindoust A,Mun J,Park S,Su CP,Kinara E,Kim J

Argan: Phytochemical profiling and evaluation of the antioxidant, hypoglycemic, and antibacterial properties of its fruit pulp extracts.

Heliyon , Volume: 10 Issue: 1 2024 Jan 15

Authors Alaoui A,Sahri N,Mahdi I,Fahsi N,El Herradi EH,Sobeh M

Lactic acid fermentation of goji berries (*Lycium barbarum*) prevents acute alcohol liver injury and modulates gut microbiota and metabolites in mice.

Food & function , Volume: 15 Issue: 3 2024 Feb 5

Authors Duan W,Zhou L,Ren Y,Liu F,Xue Y,Wang FZ,Lu R,Zhang XJ,Shi JS,Xu ZH,Geng Y

Salvia officinalis-Hydroxyapatite Nanocomposites with Antibacterial Properties.

Polymers , Volume: 15 Issue: 23 2023 Nov 22

Authors Ciobanu SC,Predoi D,Chifiriu MC,Iconaru SL,Predoi MV,Popa M,Rokosz K,Raaen S,Marinas IC

Effects of Metabolites of *Lactobacillus casei* on Expression and Neutralization of Shiga Toxin by Enterohemorrhagic *Escherichia coli*.

Probiotics and antimicrobial proteins , 2024 Jan 15

Authors Aditya A,Tabashsum Z,Martinez ZA,Biswas D

Synthesis of New Derivatives of Berberine Canagliflozin and Study of Their Antibacterial Activity and Mechanism.

Molecules (Basel, Switzerland) , Volume: 29 Issue: 1 2024 Jan 4

Authors Li J,Hou X,Xiao J,Zhu L,Deng Y,Li Z,Zhao Z,Luo Z,Wei H

Co-administration of the prebiotic 1-kestose and the paraprobiotic *Lactiplantibacillus plantarum* FM8 in magellanic penguins promotes the activity of intestinal *Lactobacillaceae* and reduces the *plc* gene levels encoding *Clostridium perfringens*

toxin.

The Journal of veterinary medical science , Volume: 86 Issue: 2 2024 Feb 8

Authors Fujii T,Kezuka C,Kawaguchi Y,Yamakawa S,Kondo N,Funasaoka K,Hirooka Y,Tochio T

Chemoprofiling and antimicrobial activity of medicinal herbs used in the treatment of inflammatory bowel disease.

Cellular and molecular biology (Noisy-le-Grand, France) , Volume: 69 Issue: 13 2023 Dec 10

Authors Alshahrani A,Ali A,Abdelwahab SF

Effects of Lactobacillus plantarum HW1 on Growth Performance, Intestinal Immune Response, Barrier Function, and Cecal Microflora of Broilers with Necrotic Enteritis.

Animals : an open access journal from MDPI , Volume: 13 Issue: 24 2023 Dec 10

Authors Chen P,Lv H,Liu W,Wang Y,Zhang K,Che C,Zhao J,Liu H

Effects of pomegranate (Punica granatum L.) peel on the growth performance and intestinal microbiota of broilers challenged with Escherichia coli.

Poultry science , Volume: 103 Issue: 2 2024 Feb

Authors Xu P,Wang J,Chen P,Ding H,Wang X,Li S,Fan X,Zhou Z,Shi D,Li Z,Cao S,Xiao Y

The Inhibitory Activity of Lactobacillus plantarum Supernatant against Enterobacteria, Campylobacter, and Tumor Cells.

Bulletin of experimental biology and medicine , Volume: 176 Issue: 1 2023 Nov

Authors Danilova TA,Adzhieva AA,Mezentseva MV,Suetina IA,Danilina GA,Minko AG,Dmitrieva ML,Zhukhovitsky VG

Anti-allergic effects of Ulva-derived polysaccharides, oligosaccharides and residues in a murine model of food allergy.

Heliyon , Volume: 9 Issue: 12 2023 Dec

Authors Ou JY,Wei YJ,Liu FL,Huang CH

To Evaluate and Compare the Antimicrobial Efficacy of Various Disinfecting Agents on K-file against Gram-positive and Gram-negative Bacteria of Endodontic Origin: An In Vitro Study.

International journal of clinical pediatric dentistry , Volume: 16 Issue: Suppl 2 2023 Sep

Authors Opi K,Dhinsa K,Tripathi AM,Saha S

Effects of different wheat bran fermentation sources on growth performance, nutrient digestibility, serum antioxidant capacity and fecal microbiota in growing pigs.

Frontiers in veterinary science , Volume: 10 2023

Authors Liu H,Ren X,Li Y,Cao Q,Yang L,Jiang S,Fu J,Gao J,Yan L,Li J,Yang W

Co-Aggregative Effect of Probiotics Bacteria against Diarrheal Causative Bacteria.

Archives of Razi Institute , Volume: 78 Issue: 3 2023 Jun

Authors Rashad Hameed S,Abdul Sattar Salman J

The Impact of Berberine Loaded Selenium Nanoparticles on K. pneumoniae and Candida albicans Antibiotics Resistance Isolates.

Archives of Razi Institute , Volume: 78 Issue: 3 2023 Jun

Authors Hasan MF,Jawad Kadhim M,Al-Awady MJ

Development of Highly Hygienic Textile by Coating with Encapsulated Ginseng Oil.

Polymers , Volume: 15 Issue: 22 2023 Nov 8

Authors Ryu S,Shim J

Antibiofilm potential of gallic acid against Klebsiella pneumoniae and Enterobacter hormaechei: in-vitro and in-silico analysis.

Biofouling , Volume: 39 Issue: 9-10 2023 Oct-Nov

Authors Rajan PP,Kumar P,Mini M,Jayakumar D,Vaikkathillam P,Asha S,Mohan A,S M

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

Thymus Vulgaris Oil Nanoemulsion: Synthesis, Characterization, Antimicrobial and Anticancer Activities.

Molecules (Basel, Switzerland) , Volume: 28 Issue: 19 2023 Oct 2

Authors Doghish AS,Shehabeldine AM,El-Mahdy HA,Hassanin MMH,Al-Askar AA,Marey SA,AbdElgawad H,Hashem AH

Biological activities, therapeutic potential, and pharmacological aspects of blackcurrants (Ribes nigrum L.): A comprehensive review.

Food science & nutrition , Volume: 11 Issue: 10 2023 Oct

Authors Ejaz A,Waliat S,Afzaal M,Saeed F,Ahmad A,Din A,Ateeq H,Asghar A,Shah YA,Rafi A,Khan MR

Antiuaviolet, Antioxidant, and Antimicrobial Properties and Anticancer Potential of Novel Environmentally Friendly Amide-Modified Gallic Acid Derivatives.

Journal of agricultural and food chemistry , 2023 Oct 6

Authors Wang X,Cong J,Zhang L,Han Z,Jiang X,Yu L

Functional proteins in breast milk and their correlation with the development of the infant gut microbiota: a study of mother-infant pairs.

Frontiers in microbiology , Volume: 14 2023

Authors Xi M,Liang D,Yan Y,Duan S,Leng H,Yang H,Shi X,Na X,Yang Y,Yang C,Szeto IM,Zhao A

Evaluation of the Antimicrobial Activity of Chitosan Nanoparticles against *Listeria monocytogenes*.

Polymers , Volume: 15 Issue: 18 2023 Sep 14

Authors Pereira S,Costa-Ribeiro A,Teixeira P,Rodríguez-Lorenzo L,Prado M,Cerqueira MA,Garrido-Maestu A

Berberine: An inspiring resource for the treatment of colorectal diseases.

Biomedicine & pharmacotherapy = Biomedecine & pharmacotherapie , Volume: 167 2023 Nov

Authors Cao F,Xia W,Dai S,Wang C,Shi R,Yang Y,Guo C,Xu XL,Luo J

Carboxymethyl chitosan-TK resistant starch complex ameliorates type 2 diabetes by regulating the gut microbiota.

International journal of biological macromolecules , Volume: 253 Issue: Pt 3 2023 Dec 31

Authors Pan X,Liu P,Zhang YJ,Zhang HK,Wei H,Jiang JY,Hui-Yan,Shang EX,Li WW,Wang Y,Duan JA

Genomic DNA Extracted from *Lactiplantibacillus plantarum* Attenuates *Porphyromonas gingivalis* Lipopolysaccharide (LPS)-Induced Inflammatory Responses via Suppression of Toll-Like Receptor (TLR)-Mediated Mitogen-Activated Protein Kinase (MAPK) and Nuclear Factor- κ B (NF- κ B) Signaling Pathways.

Food science of animal resources , Volume: 43 Issue: 5 2023 Sep

Authors Choi YH,Kim BS,Kang SS

Assessment of chemical compositions and antibacterial activity of the essential oil of *Mentha piperita* in response to salicylic acid.

Natural product research , Volume: 38 Issue: 20 2024 Oct

Authors Afkar S

Mannan oligosaccharides selenium ameliorates intestinal mucosal barrier, and regulate intestinal microbiota to prevent Enterotoxigenic *Escherichia coli* -induced diarrhea in weaned piglets.

Ecotoxicology and environmental safety , Volume: 264 2023 Oct 1

Authors Zha A,Tu R,Qi M,Wang J,Tan B,Liao P,Wu C,Yin Y

In vitro antimicrobial and cytotoxic activity of Neem and Kirata herbal formulation mediated Silver nanoparticles.

Bioinformation , Volume: 18 Issue: 11 2022

Authors R R,Sp SD,B N,S R

Effect of hydrophobic property on antibacterial activities of green tea polysaccharide conjugates against *Escherichia coli*.

International journal of biological macromolecules , Volume: 253 Issue: Pt 1 2023 Dec 31

Authors Zhou Y,Liu W,Cao W,Cheng Y,Liu Z,Chen X