MEET YOUR GERMS

1. Akira S, Takeda K: **Toll-like receptor signalling.** *Nat Rev Immunol* 2004, **4:** 499-511.

2. Chang JY, Antonopoulos DA, Kalra A, Tonelli A, Khalife WT, Schmidt TM *et al*.: **Decreased diversity of the fecal Microbiome in recurrent Clostridium difficile-associated diarrhea.** *J Infect Dis* 2008, **197:** 435-438.

3. Gourraud PA, Khankhanian P, Cereb N, Yang SY, Feolo M, Maiers M *et al*.: **HLA diversity in the 1000 genomes dataset.** *PLoS One* 2014, **9:** e97282.

4. Kanehisa M, Araki M, Goto S, Hattori M, Hirakawa M, Itoh M *et al*.: **KEGG for linking genomes to life and the environment.** *Nucleic Acids Res* 2008, **36:** D480-D484.

5. Leib SL, Tauber MG: **Pathogenesis of bacterial meningitis.** *Infect Dis Clin North Am* 1999, **13:** 527-5vi.

6. Lozupone CA, Stombaugh JI, Gordon JI, Jansson JK, Knight R: **Diversity, stability and resilience of the human gut microbiota.** *Nature* 2012, **489:** 220-230.

7. Marks LR, Davidson BA, Knight PR, Hakansson AP: **Interkingdom signaling induces Streptococcus pneumoniae biofilm dispersion and transition from asymptomatic colonization to disease.** *MBio* 2013, **4**.

8. Mistry N, Wibom C, Evander M: **Cutaneous and mucosal human papillomaviruses differ in net surface charge, potential impact on tropism.** *Virol J* 2008, **5:** 118.

9. Nowak MA, Tarczy-Hornoch K, Austyn JM: **The optimal number of major histocompatibility complex molecules in an individual.** *Proc Natl Acad Sci U S A* 1992, **89:** 10896-10899.

10. Ogata H, Goto S, Sato K, Fujibuchi W, Bono H, Kanehisa M: **KEGG: Kyoto Encyclopedia of Genes and Genomes.** *Nucleic Acids Res* 1999, **27:** 29-34.

11. Petrof EO, Gloor GB, Vanner SJ, Weese SJ, Carter D, Daigneault MC *et al*.: **Stool substitute transplant therapy for the eradication of Clostridium difficile infection: 'RePOOPulating' the gut.** *Microbiome* 2013, **1:** 3.

12. Roncarolo MG, Battaglia M: **Regulatory T-cell immunotherapy for tolerance to self antigens and alloantigens in humans.** *Nat Rev Immunol* 2007, **7:** 585-598.

13. Stagaman K, Guillemin K, Milligan-Myhre K: **Tending a complex microbiota requires major immune complexity.** *Mol Ecol* 2014, **23:** 4679-4681.

14. Takeda K, Akira S: **Toll-like receptors in innate immunity.** *Int Immunol* 2005, **17:** 1-14.

15. Woelfing B, Traulsen A, Milinski M, Boehm T: **Does intra-individual major histocompatibility complex diversity keep a golden mean?** *Philos Trans R Soc Lond B Biol Sci* 2009, **364:** 117-128.

THE ENVIRONMENT

1. Basta AH, El-Saied H: **Performance of improved bacterial cellulose application in the production of functional paper.** *J Appl Microbiol* 2009, **107:** 2098-2107.

2. Berg G, Mahnert A, Moissl-Eichinger C: **Beneficial effects of plant-associated microbes on indoor microbiomes and human health?** *Front Microbiol* 2014, **5:** 15.

3. Borer A, Gilad J, Smolyakov R, Eskira S, Peled N, Porat N *et al.*: **Cell phones and Acinetobacter transmission.** *Emerg Infect Dis* 2005, **11:** 1160-1161.

4. De FC, Cavalieri D, Di PM, Ramazzotti M, Poullet JB, Massart S *et al.*: **Impact of diet in shaping gut microbiota revealed by a comparative study in children from Europe and rural Africa.** *Proc Natl Acad Sci U S A* 2010, **107:** 14691-14696.

5. Dettenkofer M, Scherrer M, Hoch V, Glaser H, Schwarzer G, Zentner J *et al.*: **Shutting down operating theater ventilation when the theater is not in use: infection control and environmental aspects.** *Infect Control Hosp Epidemiol* 2003, **24:** 596-600.

6. Deutz A, Fuchs K, Auer H, Kerbl U, Aspock H, Kofer J: **Toxocara-infestations in Austria: a study on the risk of infection of farmers, slaughterhouse staff, hunters and veterinarians.** *Parasitol Res* 2005, **97:** 390-394.

7. Domingo JL, Nadal M: **Domestic waste composting facilities: a review of human health risks.** *Environ Int* 2009, **35:** 382-389.

8. Evans JD, Lopez DL: **Bacterial probiotics induce an immune response in the honey bee (Hymenoptera: Apidae).** *J Econ Entomol* 2004, **97:** 752-756.

9. Fouquier J, Schwartz T, Kelley ST: **Rapid assemblage of diverse environmental fungal communities on public restroom floors.** *Indoor Air* 2015.

10. Handl S, Dowd SE, Garcia-Mazcorro JF, Steiner JM, Suchodolski JS: **Massive parallel 16S rRNA gene pyrosequencing reveals highly diverse fecal bacterial and fungal communities in healthy dogs and cats.** *FEMS Microbiol Ecol* 2011, **76:** 301-310.

11. Jeon YS, Chun J, Kim BS: **Identification of household bacterial community and analysis of species shared with human microbiome.** *Curr Microbiol* 2013, **67:** 557-563.

12. Lenihan-Geels G, Bishop KS, Ferguson LR: **Alternative sources of omega-3 fats: can we find a sustainable substitute for fish?** *Nutrients* 2013, **5:** 1301-1315.

13. Letchumanan V, Chan KG, Lee LH: **Vibrio parahaemolyticus: a review on the pathogenesis, prevalence, and advance molecular identification techniques.** *Front Microbiol* 2014, **5:** 705.

14. Lindgren E, Talleklint L, Polfeldt T: **Impact of climatic change on the northern latitude limit and population density of the disease-transmitting European tick Ixodes ricinus.** *Environ Health Perspect* 2000, **108:** 119-123.

15. Lu C, Kang J: **Generation of transgenic plants of a potential oilseed crop Camelina sativa by Agrobacterium-mediated transformation.** *Plant Cell Reports* 2007, **27:** 273-278.

16. Manning ML, Davis J, Sparnon E, Ballard RM: **iPads, droids, and bugs: Infection prevention for mobile handheld devices at the point of care.** *Am J Infect Control* 2013, **41:** 1073-1076.

17. McDonnell MJ, Pickett STA, Groffman P, Bohlen P, Pouyat RV, Zipperer WC *et al*.: **Ecosystem processes along an urban-to-rural gradient.** *Urban Ecosystems* **1:** 21-36.

18. Ogden NH, Maarouf A, Barker IK, Bigras-Poulin M, Lindsay LR, Morshed MG *et al*.: **Climate change and the potential for range expansion of the Lyme disease vector Ixodes scapularis in Canada.** *Int J Parasitol* 2006, **36:** 63-70.

19. Pal S, Juyal D, Adekhandi S, Sharma M, Prakash R, Sharma N *et al*.: **Mobile phones: Reservoirs for the transmission of nosocomial pathogens.** *Adv Biomed Res* 2015, **4:** 144.

20. Pham DM, Boussouira B, Moyal D, Nguyen QL: **Oxidization of squalene, a human skin lipid: a new and reliable marker of environmental pollution studies.** *Int J Cosmet Sci* 2015, **37:** 357-365.

21. Salim SY, Kaplan GG, Madsen KL: **Air pollution effects on the gut microbiota: a link between exposure and inflammatory disease.** *Gut Microbes* 2014, **5:** 215-219.

22. Shaffer BT, Lighthart B: **Survey of Culturable Airborne Bacteria at Four Diverse Locations in Oregon: Urban, Rural, Forest, and Coastal.** *Microb Ecol* 1997, **34:** 167-177.

23. Song SJ, Lauber C, Costello EK, Lozupone CA, Humphrey G, Berg-Lyons D *et al*.: **Cohabiting family members share microbiota with one another and with their dogs.** *Elife* 2013, **2:** e00458.

24. Trotz-Williams LA, Trees AJ: **Systematic review of the distribution of the major vector-borne parasitic infections in dogs and cats in Europe.** *Vet Rec* 2003, **152:** 97-105.

25. Ulger F, Esen S, Dilek A, Yanik K, Gunaydin M, Leblebicioglu H: **Are we aware how contaminated our mobile phones with nosocomial pathogens?** *Ann Clin Microbiol Antimicrob* 2009, **8:** 7.

26. Van de Wiele T, Gallawa CM, Kubachka KM, Creed JT, Basta N, Dayton EA *et al*.: **Arsenic metabolism by human gut microbiota upon in vitro digestion of contaminated soils.** *Environ Health Perspect* 2010, **118:** 1004-1009.

27. Vinod KB, Hobani YH, Abdulhaq A, Jerah AA, Hakami OM, Eltigani M *et al*.: **Prevalence of antibacterial resistant bacterial contaminants from mobile phones of hospital inpatients.** *Libyan J Med* 2014, **9:** 25451.

28. Yatsunenko T, Rey FE, Manary MJ, Trehan I, Dominguez-Bello MG, Contreras M *et al*.: **Human gut microbiome viewed across age and geography.** *Nature* 2012, **486:** 222-227.

HYGIENE

1. Ara K, Hama M, Akiba S, Koike K, Okisaka K, Hagura T *et al*.: **Foot odor due to microbial metabolism and its control.** *Can J Microbiol* 2006, **52:** 357-364.

2. Calcott PH, MacLeod RA: **The survival of Escherichia coli from freeze-thaw damage: the relative importance of wall and membrane damage.** *Can J Microbiol* 1975, **21:** 1960-1968.

3. Chen D, Haviland-Jones J: **Rapid mood change and human odors.** *Physiol Behav* 1999, **68:** 241-250.

4. Gower DB, Holland KT, Mallet AI, Rennie PJ, Watkins WJ: **Comparison of 16-androstene steroid concentrations in sterile apocrine sweat and axillary secretions: interconversions of 16-androstenes by the axillary microflora--a mechanism for axillary odour production in man?** *J Steroid Biochem Mol Biol* 1994, **48:** 409-418.

5. HARRISON AP, Jr.: **Survival of bacteria upon repeated freezing and thawing.** *J Bacteriol* 1955, **70:** 711-715.

6. Haze S, Gozu Y, Nakamura S, Kohno Y, Sawano K, Ohta H *et al*.: **2-Nonenal newly found in human body odor tends to increase with aging.** *J Invest Dermatol* 2001, **116:** 520-524.

7. Huskins WC, Kaplan EL: **Inhibitory substances produced by Streptococcus salivarius and colonization of the upper respiratory tract with group A streptococci.** *Epidemiol Infect* 1989, **102:** 401-412.

8. Kippenberger S, Havlicek J, Bernd A, Thaci D, Kaufmann R, Meissner M: **'Nosing Around' the human skin: what information is concealed in skin odour?** *Exp Dermatol* 2012, **21:** 655-659.

9. Kuo YW, Yen M, Fetzer S, Lee JD: **Toothbrushing versus toothbrushing plus tongue cleaning in reducing halitosis and tongue coating: a systematic review and meta-analysis.** *Nurs Res* 2013, **62:** 422-429.

10. Kutyshenko VP, Molchanov M, Beskaravayny P, Uversky VN, Timchenko MA: **Analyzing and mapping sweat metabolomics by high-resolution NMR spectroscopy.** *PLoS One* 2011, **6:** e28824.

11. Marshall J, Leeming JP, Holland KT: **The cutaneous microbiology of normal human feet.** *J Appl Bacteriol* 1987, **62:** 139-146.

12. Marshall J, Holland KT, Gribbon EM: **A comparative study of the cutaneous microflora of normal feet with low and high levels of odour.** *J Appl Bacteriol* 1988, **65:** 61-68.

13. Masdea L, Kulik EM, Hauser-Gerspach I, Ramseier AM, Filippi A, Waltimo T: **Antimicrobial activity of Streptococcus salivarius K12 on bacteria involved in oral malodour.** *Arch Oral Biol* 2012, **57:** 1041-1047.

14. McGrath KG: **Apocrine sweat gland obstruction by antiperspirants allowing transdermal absorption of cutaneous generated hormones and pheromones as a link to the observed incidence rates of breast and prostate cancer in the 20th century.** *Med Hypotheses* 2009, **72:** 665-674.

15. Mitro S, Gordon AR, Olsson MJ, Lundstrom JN: **The smell of age: perception and discrimination of body odors of different ages.** *PLoS One* 2012, **7:** e38110.

16. Morley CR, Trofymow JA, Coleman DC, Cambardella C: **Effects of freeze-thaw stress on bacterial populations in soil microcosms.** *Microb Ecol* 1983, **9:** 329-340.

17. Moshkin M, Litvinova N, Litvinova EA, Bedareva A, Lutsyuk A, Gerlinskaya L: **Scent recognition of infected status in humans.** *J Sex Med* 2012, **9:** 3211-3218.

18. Munk S, MÃ¼nch P, Stahnke L, Adler-Nissen J, Schieberle P: **Primary odorants of laundry soiled with sweat/sebum: Influence of lipase on the odor profile.** *Journal of Surfactants and Detergents* **3:** 505-515.

19. Prehn A, Ohrt A, Sojka B, Ferstl R, Pause BM: **Chemosensory anxiety signals augment the startle reflex in humans.** *Neurosci Lett* 2006, **394:** 127-130.

20. Preti G, Leyden JJ: **Genetic influences on human body odor: from genes to the axillae.** *J Invest Dermatol* 2010, **130:** 344-346.

21. Roberts SC, Gosling LM, Spector TD, Miller P, Penn DJ, Petrie M: **Body odor similarity in noncohabiting twins.** *Chem Senses* 2005, **30:** 651-656.

22. Saga K: **Structure and function of human sweat glands studied with histochemistry and cytochemistry.** *Prog Histochem Cytochem* 2002, **37:** 323-386.

23. Schmidt-Rose T, Lehmbeck F, Burger A, Windisch B, Keyhani R, Max H: **Efficient sweat reduction of three different antiperspirant application forms during stress-induced sweating.** *Int J Cosmet Sci* 2013, **35:** 622-631.

24. Wedekind C, Penn D: **MHC genes, body odours, and odour preferences.** *Nephrol Dial Transplant* 2000, **15:** 1269-1271.

25. Wessel SW, van der Mei HC, Morando D, Slomp AM, Belt-Gritter B, Maitra A *et al*.: **Quantification and qualification of bacteria trapped in chewed gum.** *PLoS One* 2015, **10:** e0117191.

26. Wilke K, Martin A, Terstegen L, Biel SS: **A short history of sweat gland biology.** *Int J Cosmet Sci* 2007, **29:** 169-179.

BEAUTY

1. **Pseudomonas aeruginosa corneal infection related to mascara applicator trauma--Georgia.** *MMWR Morb Mortal Wkly Rep* 1990, **39:** 47-48.

2. **Methicillin-resistant Staphylococcus aureus skin infections among tattoo recipients--Ohio, Kentucky, and Vermont, 2004-2005.** *MMWR Morb Mortal Wkly Rep* 2006, **55:** 677-679.

3. Amodio E, Di Benedetto MA, Gennaro L, Maida CM, Romano N: **Knowledge, attitudes and risk of HIV, HBV and HCV infections in hairdressers of Palermo city (South Italy).** *Eur J Public Health* 2010, **20:** 433-437.

4. Ashjaran A, Yazdanshenas ME, Rashidi A, Khajavi R, Rezaee A: **Overview of bio nanofabric from bacterial cellulose.** *The Journal of The Textile Institute* 2013, **104:** 121-131.

5. Baradkar VP, Kumar S: **Cutaneous zygomycosis due to Saksenaea vasiformis in an immunocompetent host.** *Indian J Dermatol* 2009, **54:** 382-384.

6. Barbeito MS, Mathews CT, Taylor LA: **Microbiological laboratory hazard of bearded men.** *Appl Microbiol* 1967, **15:** 899-906.

7. Bonadonna L: **Survey of studies on microbial contamination of marketed tattoo inks.** *Curr Probl Dermatol* 2015, **48:** 190-195.

8. Booranapong W, Prabhasawat P, Kosrirukvongs P, Tarawatcharasart Y: **Risk factors for contact lens related microbial keratitis: a case-control study.** *J Med Assoc Thai* 2012, **95:** 693-698.

9. Bowe WP, Logan AC: **Acne vulgaris, probiotics and the gut-brain-skin axis - back to the future?** *Gut Pathog* 2011, **3:** 1.

10. Bruinsma GM, van der Mei HC, Busscher HJ: **Bacterial adhesion to surface hydrophilic and hydrophobic contact lenses.** *Biomaterials* 2001, **22:** 3217-3224.

11. Cao C, Jiang W, Wang B, Fang J, Lang J, Tian G *et al.*: **Inhalable microorganisms in Beijing's PM2.5 and PM10 pollutants during a severe smog event.** *Environ Sci Technol* 2014, **48:** 1499-1507.

12. Cheng KH, Leung SL, Hoekman HW, Beekhuis WH, Mulder PG, Geerards AJ *et al.*: **Incidence of contact-lens-associated microbial keratitis and its related morbidity.** *Lancet* 1999, **354:** 181-185.

13. Ciolino JB, Mills DM, Meyer DR: **Ocular manifestations of long-term mascara use.** *Ophthal Plast Reconstr Surg* 2009, **25:** 339-341.

14. Cope JR, Collier SA, Rao MM, Chalmers R, Mitchell GL, Richdale K *et al.*: **Contact Lens Wearer Demographics and Risk Behaviors for Contact Lens-Related Eye Infections--United States, 2014.** *MMWR Morb Mortal Wkly Rep* 2015, **64:** 865-870.

15. Dart JK, Radford CF, Minassian D, Verma S, Stapleton F: **Risk factors for microbial keratitis with contemporary contact lenses: a case-control study.** *Ophthalmology* 2008, **115:** 1647-54, 1654.

16. de Gruijl FR: **Skin cancer and solar UV radiation.** *Eur J Cancer* 1999, **35:** 2003-2009.

17. Demehri S, Cunningham TJ, Hurst EA, Schaffer A, Sheinbein DM, Yokoyama WM: **Chronic allergic contact dermatitis promotes skin cancer.** *J Clin Invest* 2014, **124:** 5037-5041.

18. Farah CS, Harmon DM: **Tongue piercing: case report and review of current practice.** *Aust Dent J* 1998, **43:** 387-389.

19. Fitz-Gibbon S, Tomida S, Chiu BH, Nguyen L, Du C, Liu M *et al*.: **Propionibacterium acnes strain populations in the human skin microbiome associated with acne.** *J Invest Dermatol* 2013, **133:** 2152-2160.

20. Frieden IJ, Howard R: **Tinea capitis: epidemiology, diagnosis, treatment, and control.** *J Am Acad Dermatol* 1994, **31:** S42-S46.

21. Frieden IJ: **Tinea capitis: asymptomatic carriage of infection.** *Pediatr Infect Dis J* 1999, **18:** 186-190.

22. Gaitanis G, Magiatis P, Hantschke M, Bassukas ID, Velegraki A: **The Malassezia genus in skin and systemic diseases.** *Clin Microbiol Rev* 2012, **25:** 106-141.

23. George J, White M: **Infection as a consequence of ear piercing.** *Practitioner* 1989, **233:** 404-406.

24. Heffner DK: **The cause of sarcoidosis: the Centurial enigma solved.** *Ann Diagn Pathol* 2007, **11:** 142-152.

25. Hogsberg T, Saunte DM, Frimodt-Moller N, Serup J: **Microbial status and product labelling of 58 original tattoo inks.** *J Eur Acad Dermatol Venereol* 2013, **27:** 73-80.

26. Holbrook J, Minocha J, Laumann A: **Body piercing: complications and prevention of health risks.** *Am J Clin Dermatol* 2012, **13:** 1-17.

27. Kellum RE, Strangfeld K: **Acne vulgaris. Studies in pathogenesis: fatty acids of human surface triglycerides from patients with and without acne.** *J Invest Dermatol* 1972, **58:** 315-318.

28. Kluger N: **Cutaneous complications related to permanent decorative tattooing.** *Expert Rev Clin Immunol* 2010, **6:** 363-371.

29. Kluger N: **[Cutaneous infections related to permanent tattooing].** *Med Mal Infect* 2011, **41:** 115-122.

30. Krutmann J: **Pre- and probiotics for human skin.** *Clin Plast Surg* 2012, **39:** 59-64.

31. Markoulli M, Papas E, Cole N, Holden B: **Corneal erosions in contact lens wear.** *Cont Lens Anterior Eye* 2012, **35:** 2-8.

32. Matthews TD, Frazer DG, Minassian DC, Radford CF, Dart JK: **Risks of keratitis and patterns of use with disposable contact lenses.** *Arch Ophthalmol* 1992, **110:** 1559-1562.

33. McArdle JP, Knight BA, Halliday GM, Muller HK, Rowden G: **Quantitative assessment of Langerhans cells in actinic keratosis, Bowen's disease, keratoacanthoma, squamous cell carcinoma and basal cell carcinoma.** *Pathology* 1986, **18:** 212-216.

34. McLure HA, Mannam M, Talboys CA, Azadian BS, Yentis SM: **The effect of facial hair and sex on the dispersal of bacteria below a masked subject.** *Anaesthesia* 2000, **55:** 173-176.

35. Messahel A, Musgrove B: **Infective complications of tattooing and skin piercing.** *J Infect Public Health* 2009, **2:** 7-13.

36. Moore MB, McCulley JP, Luckenbach M, Gelender H, Newton C, McDonald MB *et al.*: **Acanthamoeba keratitis associated with soft contact lenses.** *Am J Ophthalmol* 1985, **100:** 396-403.

37. Murphy GM: **Ultraviolet radiation and immunosuppression.** *Br J Dermatol* 2009, **161 Suppl 3:** 90-95.

38. Norval M, Garssen J, Van LH, el-Ghorr AA: **UV-induced changes in the immune response to microbial infections in human subjects and animal models.** *J Epidemiol* 1999, **9:** S84-S92.

39. Pack LD, Wickham MG, Enloe RA, Hill DN: **Microbial contamination associated with mascara use.** *Optometry* 2008, **79:** 587-593.

40. Pham DM, Boussouira B, Moyal D, Nguyen QL: **Oxidization of squalene, a human skin lipid: a new and reliable marker of environmental pollution studies.** *Int J Cosmet Sci* 2015, **37:** 357-365.

41. Scheibner A, McCarthy WH, Milton GW, Nordlund JJ: **Langerhans cell and melanocyte distribution in "normal" human epidermis. Preliminary report.** *Australas J Dermatol* 1983, **24:** 9-16.

42. Schein OD, Ormerod LD, Barraquer E, Alfonso E, Egan KM, Paton BG *et al.*: **Microbiology of contact lens-related keratitis.** *Cornea* 1989, **8:** 281-285.

43. Schmidt A: **Malassezia furfur: a fungus belonging to the physiological skin flora and its relevance in skin disorders.** *Cutis* 1997, **59:** 21-24.

44. Shacham R, Zaguri A, Librus HZ, Bar T, Eliav E, Nahlieli O: **Tongue piercing and its adverse effects.** *Oral Surg Oral Med Oral Pathol Oral Radiol Endod* 2003, **95:** 274-276.

45. Sharma R, Jhanji V, Satpathy G, Sharma N, Khokhar S, Agarwal T: **Coinfection with Acanthamoeba and Pseudomonas in contact lens-associated keratitis.** *Optom Vis Sci* 2013, **90:** e53-e55.

46. Shu M, Wang Y, Yu J, Kuo S, Coda A, Jiang Y *et al.*: **Fermentation of Propionibacterium acnes, a commensal bacterium in the human skin microbiome, as skin probiotics against methicillin-resistant Staphylococcus aureus.** *PLoS One* 2013, **8:** e55380.

47. Stapleton F, Edwards K, Keay L, Naduvilath T, Dart JK, Brian G *et al.*: **Risk factors for moderate and severe microbial keratitis in daily wear contact lens users.** *Ophthalmology* 2012, **119:** 1516-1521.

48. Stemper ME, Brady JM, Qutaishat SS, Borlaug G, Reed J, Reed KD *et al.*: **Shift in Staphylococcus aureus clone linked to an infected tattoo.** *Emerg Infect Dis* 2006, **12:** 1444-1446.

49. Tweeten SS, Rickman LS: **Infectious complications of body piercing.** *Clin Infect Dis* 1998, **26:** 735-740.

50. Uslu H, Uyanik M, Ayyildiz A: **Mycological examination of the barbers' tools about sources of fungal infections.** *Mycoses* 2008, **51:** 447-450.

51. Van de Wiele T, Gallawa CM, Kubachka KM, Creed JT, Basta N, Dayton EA *et al*.: **Arsenic metabolism by human gut microbiota upon in vitro digestion of contaminated soils.** *Environ Health Perspect* 2010, **118:** 1004-1009.

52. Vijay AK, Zhu H, Ozkan J, Wu D, Masoudi S, Bandara R *et al*.: **Bacterial adhesion to unworn and worn silicone hydrogel lenses.** *Optom Vis Sci* 2012, **89:** 1095-1106.

53. Wang Y, Kuo S, Shu M, Yu J, Huang S, Dai A *et al*.: **Staphylococcus epidermidis in the human skin microbiome mediates fermentation to inhibit the growth of Propionibacterium acnes: implications of probiotics in acne vulgaris.** *Appl Microbiol Biotechnol* 2014, **98:** 411-424.

54. Wilson LA, Julian AJ, Ahearn DG: **The survival and growth of microorganisms in mascara during use.** *Am J Ophthalmol* 1975, **79:** 596-601.

55. Wilson SE, Bannan RA, McDonald MB, Kaufman HE: **Corneal trauma and infection caused by manipulation of the eyelashes after application of mascara.** *Cornea* 1990, **9:** 181-182.

56. Wong SS, Wong SC, Yuen KY: **Infections associated with body modification.** *J Formos Med Assoc* 2012, **111:** 667-681.

ANTIBIOTICS AND PROBIOTICS

1. Brace C, Gloor GB, Ropeleski M, Allen-Vercoe E, Petrof EO: **Microbial composition analysis of Clostridium difficile infections in an ulcerative colitis patient treated with multiple fecal microbiota transplantations.** *J Crohns Colitis* 2014, **8:** 1133-1137.

2. Cammarota G, Ianiro G, Gasbarrini A: **Fecal microbiota transplantation for the treatment of Clostridium difficile infection: a systematic review.** *J Clin Gastroenterol* 2014, **48:** 693-702.

3. Chauviere G, Coconnier MH, Kerneis S, Fourniat J, Servin AL: **Adhesion of human Lactobacillus acidophilus strain LB to human enterocyte-like Caco-2 cells.** *J Gen Microbiol* 1992, **138 Pt 8:** 1689-1696.

4. Cosseau C, Devine DA, Dullaghan E, Gardy JL, Chikatamarla A, Gellatly S *et al.*: **The commensal Streptococcus salivarius K12 downregulates the innate immune responses of human epithelial cells and promotes host-microbe homeostasis.** *Infect Immun* 2008, **76:** 4163-4175.

5. Cox SD, Mann CM, Markham JL, Bell HC, Gustafson JE, Warmington JR *et al.*: **The mode of antimicrobial action of the essential oil of Melaleuca alternifolia (tea tree oil).** *J Appl Microbiol* 2000, **88:** 170-175.

6. Danino T, Prindle A, Kwong GA, Skalak M, Li H, Allen K *et al.*: **Programmable probiotics for detection of cancer in urine.** *Sci Transl Med* 2015, **7:** 289ra84.

7. Dethlefsen L, Relman DA: **Incomplete recovery and individualized responses of the human distal gut microbiota to repeated antibiotic perturbation.** *Proc Natl Acad Sci U S A* 2011, **108 Suppl 1:** 4554-4561.

8. Di PF, Donato G, Fomia F, Adami T, Careddu D, Cassandro C *et al.*: **Preliminary pediatric clinical evaluation of the oral probiotic Streptococcus salivarius K12 in preventing recurrent pharyngitis and/or tonsillitis caused by Streptococcus pyogenes and recurrent acute otitis media.** *Int J Gen Med* 2012, **5:** 991-997.

9. Didari T, Solki S, Mozaffari S, Nikfar S, Abdollahi M: **A systematic review of the safety of probiotics.** *Expert Opin Drug Saf* 2014, **13:** 227-239.

10. Ericson D, Hamberg K, Bratthall G, Sinkiewicz-Enggren G, Ljunggren L: **Salivary IgA response to probiotic bacteria and mutans streptococci after the use of chewing gum containing Lactobacillus reuteri.** *Pathog Dis* 2013, **68:** 82-87.

11. Filkins LM, Hampton TH, Gifford AH, Gross MJ, Hogan DA, Sogin ML *et al.*: **Prevalence of streptococci and increased polymicrobial diversity associated with cystic fibrosis patient stability.** *J Bacteriol* 2012, **194:** 4709-4717.

12. Floch MH: **Fecal bacteriotherapy, fecal transplant, and the microbiome.** *J Clin Gastroenterol* 2010, **44:** 529-530.

13. Gomez ZA, Kociubinski G, Perez P, De AG: **Isolation and characterization of Bifidobacterium strains for probiotic formulation.** *J Food Prot* 1998, **61:** 865-873.

14. Hamilton-Miller JM, Gibson GR, Bruck W: **Some insights into the derivation and early uses of the word 'probiotic'.** *Br J Nutr* 2003, **90:** 845.

15. Jeffery IB, Lynch DB, O'Toole PW: **Composition and temporal stability of the gut microbiota in older persons.** *ISME J* 2016, **10:** 170-182.

16. Joerger RD: **Alternatives to antibiotics: bacteriocins, antimicrobial peptides and bacteriophages.** *Poult Sci* 2003, **82:** 640-647.

17. Kos B, Suskovic J, Vukovic S, Simpraga M, Frece J, Matosic S: **Adhesion and aggregation ability of probiotic strain Lactobacillus acidophilus M92.** *J Appl Microbiol* 2003, **94:** 981-987.

18. Lomax AR, Calder PC: **Prebiotics, immune function, infection and inflammation: a review of the evidence.** *Br J Nutr* 2009, **101:** 633-658.

19. Lozupone CA, Stombaugh JI, Gordon JI, Jansson JK, Knight R: **Diversity, stability and resilience of the human gut microbiota.** *Nature* 2012, **489:** 220-230.

20. Lynch DB, Jeffery IB, Cusack S, O'Connor EM, O'Toole PW: **Diet-microbiota-health interactions in older subjects: implications for healthy aging.** *Interdiscip Top Gerontol* 2015, **40:** 141-154.

21. Martin R, Jimenez E, Olivares M, Marin ML, Fernandez L, Xaus J *et al.*: **Lactobacillus salivarius CECT 5713, a potential probiotic strain isolated from infant feces and breast milk of a mother-child pair.** *Int J Food Microbiol* 2006, **112:** 35-43.

22. Merabishvili M, Pirnay JP, Verbeken G, Chanishvili N, Tediashvili M, Lashkhi N *et al.*: **Quality-controlled small-scale production of a well-defined bacteriophage cocktail for use in human clinical trials.** *PLoS One* 2009, **4:** e4944.

23. Redman MG, Ward EJ, Phillips RS: **The efficacy and safety of probiotics in people with cancer: a systematic review.** *Ann Oncol* 2014, **25:** 1919-1929.

24. Reid G, Sanders ME, Gaskins HR, Gibson GR, Mercenier A, Rastall R *et al.*: **New scientific paradigms for probiotics and prebiotics.** *J Clin Gastroenterol* 2003, **37:** 105-118.

25. Reid G, Younes JA, Van der Mei HC, Gloor GB, Knight R, Busscher HJ: **Microbiota restoration: natural and supplemented recovery of human microbial communities.** *Nat Rev Microbiol* 2011, **9:** 27-38.

26. Sanders ME: **Probiotics: definition, sources, selection, and uses.** *Clin Infect Dis* 2008, **46 Suppl 2:** S58-S61.

27. Sang Y, Blecha F: **Antimicrobial peptides and bacteriocins: alternatives to traditional antibiotics.** *Anim Health Res Rev* 2008, **9:** 227-235.

28. Tamayo C: **Clinical research on probiotics: the interface between science and regulation.** *Clin Infect Dis* 2008, **46 Suppl 2:** S101-S103.

29. Trebichavsky I, Splichal I: **Probiotics manipulate host cytokine response and induce antimicrobial peptides.** *Folia Microbiol (Praha)* 2006, **51:** 507-510.

30. Twetman S, Derawi B, Keller M, Ekstrand K, Yucel-Lindberg T, Stecksen-Blicks C: **Short-term effect of chewing gums containing probiotic Lactobacillus reuteri on the levels of inflammatory mediators in gingival crevicular fluid.** *Acta Odontol Scand* 2009, **67:** 19-24.

31. Vandersteegen K, Mattheus W, Ceyssens PJ, Bilocq F, De VD, Pirnay JP *et al*.: **Microbiological and molecular assessment of bacteriophage ISP for the control of Staphylococcus aureus.** *PLoS One* 2011, **6:** e24418.

32. Yatsunenko T, Rey FE, Manary MJ, Trehan I, Dominguez-Bello MG, Contreras M *et al*.: **Human gut microbiome viewed across age and geography.** *Nature* 2012, **486:** 222-227.

HEALTH

1. Anagnostou K, Islam S, King Y, Foley L, Pasea L, Bond S *et al*.: **Assessing the efficacy of oral immunotherapy for the desensitisation of peanut allergy in children (STOP II): a phase 2 randomised controlled trial.** *Lancet* 2014, **383:** 1297-1304.

2. Bala S, Marcos M, Gattu A, Catalano D, Szabo G: **Acute binge drinking increases serum endotoxin and bacterial DNA levels in healthy individuals.** *PLoS One* 2014, **9:** e96864.

3. Barrett E, Ross RP, O'Toole PW, Fitzgerald GF, Stanton C: **gamma-Aminobutyric acid production by culturable bacteria from the human intestine.** *J Appl Microbiol* 2012, **113:** 411-417.

4. Bendiks M, Kopp MV: **The relationship between advances in understanding the microbiome and the maturing hygiene hypothesis.** *Curr Allergy Asthma Rep* 2013, **13:** 487-494.

5. Benjamin JL, Hedin CR, Koutsoumpas A, Ng SC, McCarthy NE, Prescott NJ *et al*.: **Smokers with active Crohn's disease have a clinically relevant dysbiosis of the gastrointestinal microbiota.** *Inflamm Bowel Dis* 2012, **18:** 1092-1100.

6. Berni CR, Di CM, Pezzella V, Cosenza L, Granata V, Terrin G *et al*.: **The Potential Therapeutic Efficacy of Lactobacillus GG in Children with Food Allergies.** *Pharmaceuticals (Basel)* 2012, **5:** 655-664.

7. Bhakta JN, Ohnishi K, Munekage Y, Iwasaki K, Wei MQ: **Characterization of lactic acid bacteria-based probiotics as potential heavy metal sorbents.** *J Appl Microbiol* 2012, **112:** 1193-1206.

8. Bhattacharjee S, Lukiw WJ: **Alzheimer's disease and the microbiome.** *Front Cell Neurosci* 2013, **7:** 153.

9. Bhullar KS, Rupasinghe HP: **Polyphenols: multipotent therapeutic agents in neurodegenerative diseases.** *Oxid Med Cell Longev* 2013, **2013:** 891748.

10. Bode C, Bode JC: **Effect of alcohol consumption on the gut.** *Best Pract Res Clin Gastroenterol* 2003, **17:** 575-592.

11. Breton J, Daniel C, Dewulf J, Pothion S, Froux N, Sauty M *et al*.: **Gut microbiota limits heavy metals burden caused by chronic oral exposure.** *Toxicol Lett* 2013, **222:** 132-138.

13. Bruzzese E, Callegari ML, Raia V, Viscovo S, Scotto R, Ferrari S *et al*.: **Disrupted intestinal microbiota and intestinal inflammation in children with cystic fibrosis and its restoration with Lactobacillus GG: a randomised clinical trial.** *PLoS One* 2014, **9:** e87796.

14. Buckworth J, Nigg C: **Physical activity, exercise, and sedentary behavior in college students.** *J Am Coll Health* 2004, **53:** 28-34.

15. Camelo-Castillo AJ, Mira A, Pico A, Nibali L, Henderson B, Donos N *et al*.: **Subgingival microbiota in health compared to periodontitis and the influence of smoking.** *Front Microbiol* 2015, **6:** 119.

16. Candore G, Balistreri CR, Colonna-Romano G, Grimaldi MP, Lio D, Listi' F *et al*.: **Immunosenescence and anti-immunosenescence therapies: the case of probiotics.** *Rejuvenation Res* 2008, **11:** 425-432.

17. Cao Y, Shen J, Ran ZH: **Association between Faecalibacterium prausnitzii Reduction and Inflammatory Bowel Disease: A Meta-Analysis and Systematic Review of the Literature.** *Gastroenterol Res Pract* 2014, **2014:** 872725.

18. Cerajewska TL, Davies M, West NX: **Periodontitis: a potential risk factor for Alzheimer's disease.** *Br Dent J* 2015, **218:** 29-34.

20. Churg A, Dai J, Tai H, Xie C, Wright JL: **Tumor necrosis factor-alpha is central to acute cigarette smoke-induced inflammation and connective tissue breakdown.** *Am J Respir Crit Care Med* 2002, **166:** 849-854.

21. Collins MA, Neafsey EJ, Mukamal KJ, Gray MO, Parks DA, Das DK *et al*.: **Alcohol in moderation, cardioprotection, and neuroprotection: epidemiological considerations and mechanistic studies.** *Alcohol Clin Exp Res* 2009, **33:** 206-219.

22. Ding SZ, Zheng PY: **Helicobacter pylori infection induced gastric cancer; advance in gastric stem cell research and the remaining challenges.** *Gut Pathog* 2012, **4:** 18.

23. Ercal N, Gurer-Orhan H, Aykin-Burns N: **Toxic metals and oxidative stress part I: mechanisms involved in metal-induced oxidative damage.** *Curr Top Med Chem* 2001, **1:** 529-539.

25. Feehley T, Stefka AT, Cao S, Nagler CR: **Microbial regulation of allergic responses to food.** *Semin Immunopathol* 2012, **34:** 671-688.

26. Fitzsimmons PT, Maher JP, Doerksen SE, Elavsky S, Rebar AL, Conroy DE: **A Daily Process Analysis of Physical Activity, Sedentary Behavior, and Perceived Cognitive Abilities.** *Psychol Sport Exerc* 2014, **15:** 498-504.

27. Ford AC, Quigley EM, Lacy BE, Lembo AJ, Saito YA, Schiller LR *et al*.: **Efficacy of prebiotics, probiotics, and synbiotics in irritable bowel syndrome and chronic idiopathic constipation: systematic review and meta-analysis.** *Am J Gastroenterol* 2014, **109:** 1547-1561.

28. Foulkes EC: **On the mechanism of transfer of heavy metals across cell membranes.** *Toxicology* 1988, **52:** 263-272.

29. Foulkes EC: **Transport of toxic heavy metals across cell membranes.** *Proc Soc Exp Biol Med* 2000, **223:** 234-240.

30. Galal-Gorchev H: **Dietary intake, levels in food and estimated intake of lead, cadmium, and mercury.** *Food Addit Contam* 1993, **10:** 115-128.

31. Garmendia J, Morey P, Bengoechea JA: **Impact of cigarette smoke exposure on host-bacterial pathogen interactions.** *Eur Respir J* 2012, **39:** 467-477.

32. Gleeson M: **Immune function in sport and exercise.** *J Appl Physiol (1985)* 2007, **103:** 693-699.

33. Gleeson M, Williams C: **Intense exercise training and immune function.** *Nestle Nutr Inst Workshop Ser* 2013, **76:** 39-50.

34. Gomes AC, Bueno AA, de Souza RG, Mota JF: **Gut microbiota, probiotics and diabetes.** *Nutr J* 2014, **13:** 60.

35. Halttunen T, Collado MC, El-Nezami H, Meriluoto J, Salminen S: **Combining strains of lactic acid bacteria may reduce their toxin and heavy metal removal efficiency from aqueous solution.** *Lett Appl Microbiol* 2008, **46:** 160-165.

37. Hama R: **A/H1N1 flu. NSAIDs and flu.** *BMJ* 2009, **338:** b2345.

38. Han JL, Lin HL: **Intestinal microbiota and type 2 diabetes: from mechanism insights to therapeutic perspective.** *World J Gastroenterol* 2014, **20:** 17737-17745.

39. Hao Q, Dong BR, Wu T: **Probiotics for preventing acute upper respiratory tract infections.** *Cochrane Database Syst Rev* 2015, **2:** CD006895.

40. Hider RC, McCormack W: **Facilitated transport of amino acids across organic phases and the human erythrocyte membrane.** *Biochem J* 1980, **188:** 541-548.

41. Higuchi T, Hayashi H, Abe K: **Exchange of glutamate and gamma-aminobutyrate in a Lactobacillus strain.** *J Bacteriol* 1997, **179:** 3362-3364.

42. Hildebrandt G: **Phase manipulation, shift work, and jet lag: an overview.** *Prog Clin Biol Res* 1987, **227B:** 377-390.

43. Hill DA, Artis D: **The influence of commensal bacteria-derived signals on basophil-associated allergic inflammation.** *Gut Microbes* 2013, **4:** 76-83.

44. Hill JM, Bhattacharjee S, Pogue AI, Lukiw WJ: **The gastrointestinal tract microbiome and potential link to Alzheimer's disease.** *Front Neurol* 2014, **5:** 43.

45. Hill JM, Lukiw WJ: **Microbial-generated amyloids and Alzheimer's disease (AD).** *Front Aging Neurosci* 2015, **7:** 9.

46. Hodges K, Gill R: **Infectious diarrhea: Cellular and molecular mechanisms.** *Gut Microbes* 2010, **1:** 4-21.

47. Hoffman-Goetz L, Pedersen BK: **Exercise and the immune system: a model of the stress response?** *Immunol Today* 1994, **15:** 382-387.

48. Ibrahim F, Halttunen T, Tahvonen R, Salminen S: **Probiotic bacteria as potential detoxification tools: assessing their heavy metal binding isotherms.** *Can J Microbiol* 2006, **52:** 877-885.

49. Isolauri E, Rautava S, Collado MC, Salminen S: **Role of probiotics in reducing the risk of gestational diabetes.** *Diabetes Obes Metab* 2015, **17:** 713-719.

50. Jones ML, Martoni CJ, Prakash S: **Cholesterol lowering and inhibition of sterol absorption by Lactobacillus reuteri NCIMB 30242: a randomized controlled trial.** *Eur J Clin Nutr* 2012, **66:** 1234-1241.

52. Kamer AR, Craig RG, Dasanayake AP, Brys M, Glodzik-Sobanska L, de Leon MJ: **Inflammation and Alzheimer's disease: possible role of periodontal diseases.** *Alzheimers Dement* 2008, **4:** 242-250.

53. Kang SS, Jeraldo PR, Kurti A, Miller ME, Cook MD, Whitlock K *et al.*: **Diet and exercise orthogonally alter the gut microbiome and reveal independent associations with anxiety and cognition.** *Mol Neurodegener* 2014, **9:** 36.

54. Kelly JT, Busse WW: **Host immune responses to rhinovirus: mechanisms in asthma.** *J Allergy Clin Immunol* 2008, **122:** 671-682.

56. Khan MT, van Dijl JM, Harmsen HJ: **Antioxidants keep the potentially probiotic but highly oxygen-sensitive human gut bacterium Faecalibacterium prausnitzii alive at ambient air.** *PLoS One* 2014, **9:** e96097.

57. Kilpatrick M, Hebert E, Bartholomew J: **College students' motivation for physical activity: differentiating men's and women's motives for sport participation and exercise.** *J Am Coll Health* 2005, **54:** 87-94.

58. Kinney KS, Austin CE, Morton DS, Sonnenfeld G: **Norepinephrine as a growth stimulating factor in bacteria--mechanistic studies.** *Life Sci* 2000, **67:** 3075-3085.

59. Kovachev SM, Vatcheva-Dobrevska RS: **Local Probiotic Therapy for Vaginal Candida albicans Infections.** *Probiotics Antimicrob Proteins* 2015, **7:** 38-44.

60. Lax AJ, Thomas W: **How bacteria could cause cancer: one step at a time.** *Trends Microbiol* 2002, **10:** 293-299.

61. Le MG, Moulton LH, Hill C, Kramar A: **Consumption of dairy produce and alcohol in a case-control study of breast cancer.** *J Natl Cancer Inst* 1986, **77:** 633-636.

62. Leclercq S, De SC, Delzenne N, de TP, Starkel P: **Role of inflammatory pathways, blood mononuclear cells, and gut-derived bacterial products in alcohol dependence.** *Biol Psychiatry* 2014, **76:** 725-733.

63. Legatzki A, Rosler B, von ME: **Microbiome diversity and asthma and allergy risk.** *Curr Allergy Asthma Rep* 2014, **14:** 466.

64. Levine AJ: **The common mechanisms of transformation by the small DNA tumor viruses: The inactivation of tumor suppressor gene products: p53.** *Virology* 2009, **384:** 285-293.

65. Levri KM, Ketvertis K, Deramo M, Merenstein JH, D'Amico F: **Do probiotics reduce adult lactose intolerance? A systematic review.** *J Fam Pract* 2005, **54:** 613-620.

66. Li D, Li Q, Liu C, Lin M, Li X, Xiao X *et al.*: **Efficacy and safety of probiotics in the treatment of Candida-associated stomatitis.** *Mycoses* 2014, **57:** 141-146.

67. Li H, Cao Y: **Lactic acid bacterial cell factories for gamma-aminobutyric acid.** *Amino Acids* 2010, **39:** 1107-1116.

68. Llobet JM, Falco G, Casas C, Teixido A, Domingo JL: **Concentrations of arsenic, cadmium, mercury, and lead in common foods and estimated daily intake by children, adolescents, adults, and seniors of Catalonia, Spain.** *J Agric Food Chem* 2003, **51:** 838-842.

69. Lopez-Siles M, Martinez-Medina M, Busquets D, Sabat-Mir M, Duncan SH, Flint HJ *et al*.: **Mucosa-associated Faecalibacterium prausnitzii and Escherichia coli co-abundance can distinguish Irritable Bowel Syndrome and Inflammatory Bowel Disease phenotypes.** *Int J Med Microbiol* 2014, **304:** 464-475.

70. Maher JP, Doerksen SE, Elavsky S, Conroy DE: **Daily satisfaction with life is regulated by both physical activity and sedentary behavior.** *J Sport Exerc Psychol* 2014, **36:** 166-178.

71. Maier KJ, James AE: **Hostility and social support explain physical activity beyond negative affect among young men, but not women, in college.** *Behav Med* 2014, **40:** 34-41.

72. Mayer FL, Wilson D, Hube B: **Candida albicans pathogenicity mechanisms.** *Virulence* 2013, **4:** 119-128.

73. McLoughlin RM, Mills KH: **Influence of gastrointestinal commensal bacteria on the immune responses that mediate allergy and asthma.** *J Allergy Clin Immunol* 2011, **127:** 1097-1107.

74. Miki K, Miki M, Okano Y, Nakamura Y, Ogushi F, Ohtsuki Y *et al*.: **Cigarette smoke-induced acute eosinophilic pneumonia accompanied with neutrophilia in the blood.** *Intern Med* 2002, **41:** 993-996.

75. Minuk GY: **Gamma-aminobutyric acid (GABA) production by eight common bacterial pathogens.** *Scand J Infect Dis* 1986, **18:** 465-467.

76. Miquel S, Martin R, Bridonneau C, Robert V, Sokol H, Bermudez-Humaran LG *et al*.: **Ecology and metabolism of the beneficial intestinal commensal bacterium Faecalibacterium prausnitzii.** *Gut Microbes* 2014, **5:** 146-151.

77. Moroti C, Souza Magri LF, de Rezende CM, Cavallini DC, Sivieri K: **Effect of the consumption of a new symbiotic shake on glycemia and cholesterol levels in elderly people with type 2 diabetes mellitus.** *Lipids Health Dis* 2012, **11:** 29.

78. Morris A, Beck JM, Schloss PD, Campbell TB, Crothers K, Curtis JL *et al*.: **Comparison of the respiratory microbiome in healthy nonsmokers and smokers.** *Am J Respir Crit Care Med* 2013, **187:** 1067-1075.

79. Mutlu EA, Gillevet PM, Rangwala H, Sikaroodi M, Naqvi A, Engen PA *et al*.: **Colonic microbiome is altered in alcoholism.** *Am J Physiol Gastrointest Liver Physiol* 2012, **302:** G966-G978.

80. Nieman DC, Pedersen BK: **Exercise and immune function. Recent developments.** *Sports Med* 1999, **27:** 73-80.

81. Nikitin PA, Luftig MA: **The DNA damage response in viral-induced cellular transformation.** *Br J Cancer* 2012, **106:** 429-435.

82. Oehme FW: **Mechanisms of heavy metal toxicities.** *Clin Toxicol* 1972, **5:** 151-167.

83. Ookawara T, Haga S, Ha S, Oh-Ishi S, Toshinai K, Kizaki T *et al*.: **Effects of endurance training on three superoxide dismutase isoenzymes in human plasma.** *Free Radic Res* 2003, **37:** 713-719.

84. Peiris JS, Hui KP, Yen HL: **Host response to influenza virus: protection versus immunopathology.** *Curr Opin Immunol* 2010, **22:** 475-481.

85. Pelletier JE, Lytle LA, Laska MN: **Stress, Health Risk Behaviors, and Weight Status Among Community College Students.** *Health Educ Behav* 2015.

86. Poomalar GK: **Changing trends in management of gestational diabetes mellitus.** *World J Diabetes* 2015, **6:** 284-295.

87. Porat Y, Abramowitz A, Gazit E: **Inhibition of amyloid fibril formation by polyphenols: structural similarity and aromatic interactions as a common inhibition mechanism.** *Chem Biol Drug Des* 2006, **67:** 27-37.

88. Posserud I, Stotzer PO, Bjornsson ES, Abrahamsson H, Simren M: **Small intestinal bacterial overgrowth in patients with irritable bowel syndrome.** *Gut* 2007, **56:** 802-808.

89. Purohit V, Bode JC, Bode C, Brenner DA, Choudhry MA, Hamilton F *et al*.: **Alcohol, intestinal bacterial growth, intestinal permeability to endotoxin, and medical consequences: summary of a symposium.** *Alcohol* 2008, **42:** 349-361.

90. Quindry JC, Stone WL, King J, Broeder CE: **The effects of acute exercise on neutrophils and plasma oxidative stress.** *Med Sci Sports Exerc* 2003, **35:** 1139-1145.

91. Rainsford KD: **Influenza ("Bird Flu"), inflammation and anti-inflammatory/analgesic drugs.** *Inflammopharmacology* 2006, **14:** 2-9.

92. Rana SV, Bhardwaj SB: **Small intestinal bacterial overgrowth.** *Scand J Gastroenterol* 2008, **43:** 1030-1037.

93. Redfern P, Minors D, Waterhouse J: **Circadian rhythms, jet lag, and chronobiotics: an overview.** *Chronobiol Int* 1994, **11:** 253-265.

94. Rizzello CG, Cassone A, Di CR, Gobbetti M: **Synthesis of angiotensin I-converting enzyme (ACE)-inhibitory peptides and gamma-aminobutyric acid (GABA) during sourdough fermentation by selected lactic acid bacteria.** *J Agric Food Chem* 2008, **56:** 6936-6943.

95. Rizzo A, Losacco A, Carratelli CR: **Lactobacillus crispatus modulates epithelial cell defense against Candida albicans through Toll-like receptors 2 and 4, interleukin 8 and human beta-defensins 2 and 3.** *Immunol Lett* 2013, **156:** 102-109.

96. Rogers AB: **Distance burning: how gut microbes promote extraintestinal cancers.** *Gut Microbes* 2011, **2:** 52-57.

97. Rossi O, Khan MT, Schwarzer M, Hudcovic T, Srutkova D, Duncan SH *et al*.: **Faecalibacterium prausnitzii Strain HTF-F and Its Extracellular Polymeric Matrix Attenuate Clinical Parameters in DSS-Induced Colitis.** *PLoS One* 2015, **10:** e0123013.

98. Ryder MI, Saghizadeh M, Ding Y, Nguyen N, Soskolne A: **Effects of tobacco smoke on the secretion of interleukin-1beta, tumor necrosis factor-alpha, and transforming growth factor-beta from peripheral blood mononuclear cells.** *Oral Microbiol Immunol* 2002, **17:** 331-336.

99. Salonia A, Zanni G, Nappi RE, Briganti A, Deho F, Fabbri F *et al*.: **Sexual dysfunction is common in women with lower urinary tract symptoms and urinary incontinence: results of a cross-sectional study.** *Eur Urol* 2004, **45:** 642-648.

100. Shapira I, Sultan K, Lee A, Taioli E: **Evolving concepts: how diet and the intestinal microbiome act as modulators of breast malignancy.** *ISRN Oncol* 2013, **2013:** 693920.

101. Shoemark DK, Allen SJ: **The microbiome and disease: reviewing the links between the oral microbiome, aging, and Alzheimer's disease.** *J Alzheimers Dis* 2015, **43:** 725-738.

103. Siddiqui H, Lagesen K, Nederbragt AJ, Eri LM, Jeansson SL, Jakobsen KS: **Pathogens in Urine from a Female Patient with Overactive Bladder Syndrome Detected by Culture-independent High Throughput Sequencing: A Case Report.** *Open Microbiol J* 2014, **8:** 148-153.

104. Simon C, Kellou N, Dugas J, Platat C, Copin N, Schweitzer B *et al*.: **A socio-ecological approach promoting physical activity and limiting sedentary behavior in adolescence showed weight benefits maintained 2.5 years after intervention cessation.** *Int J Obes (Lond)* 2014, **38:** 936-943.

105. Singhrao SK, Harding A, Simmons T, Robinson S, Kesavalu L, Crean S: **Oral inflammation, tooth loss, risk factors, and association with progression of Alzheimer's disease.** *J Alzheimers Dis* 2014, **42:** 723-737.

106. Smith SR: **A critical review of the bioavailability and impacts of heavy metals in municipal solid waste composts compared to sewage sludge.** *Environ Int* 2009, **35:** 142-156.

107. Sopori M: **Effects of cigarette smoke on the immune system.** *Nat Rev Immunol* 2002, **2:** 372-377.

108. Spinler JK, Taweechotipatr M, Rognerud CL, Ou CN, Tumwasorn S, Versalovic J: **Human-derived probiotic Lactobacillus reuteri demonstrate antimicrobial activities targeting diverse enteric bacterial pathogens.** *Anaerobe* 2008, **14:** 166-171.

109. Stein GH, Yanishevsky RM, Gordon L, Beeson M: **Carcinogen-transformed human cells are inhibited from entry into S phase by fusion to senescent cells but cells transformed by DNA tumor viruses overcome the inhibition.** *Proc Natl Acad Sci U S A* 1982, **79:** 5287-5291.

110. Stossel TP: **The discovery of statins.** *Cell* 2008, **134:** 903-905.

111. Surawicz CM: **Mechanisms of diarrhea.** *Curr Gastroenterol Rep* 2010, **12:** 236-241.

112. Tang F, Reddy BL, Saier MH, Jr.: **Psychobiotics and their involvement in mental health.** *J Mol Microbiol Biotechnol* 2014, **24:** 211-214.

113. Tang ML, Ponsonby AL, Orsini F, Tey D, Robinson M, Su EL *et al*.: **Administration of a probiotic with peanut oral immunotherapy: A randomized trial.** *J Allergy Clin Immunol* 2015, **135:** 737-744.

114. Taranto MP, Fernandez Murga ML, Lorca G, de Valdez GF: **Bile salts and cholesterol induce changes in the lipid cell membrane of Lactobacillus reuteri.** *J Appl Microbiol* 2003, **95:** 86-91.

115. Tchounwou PB, Yedjou CG, Patlolla AK, Sutton DJ: **Heavy metal toxicity and the environment.** *EXS* 2012, **101:** 133-164.

116. Thomas GN, Chook P, Yip TW, Kwong SK, Chan TY, Qiao M *et al*.: **Smoking without exception adversely affects vascular structure and function in apparently healthy Chinese: implications in global atherosclerosis prevention.** *Int J Cardiol* 2008, **128:** 172-177.

117. Urbaniak C, Cummins J, Brackstone M, Macklaim JM, Gloor GB, Baban CK *et al*.: **Microbiota of human breast tissue.** *Appl Environ Microbiol* 2014, **80:** 3007-3014.

119. van't Veer P, Dekker JM, Lamers JW, Kok FJ, Schouten EG, Brants HA *et al*.: **Consumption of fermented milk products and breast cancer: a case-control study in The Netherlands.** *Cancer Res* 1989, **49:** 4020-4023.

120. Van Helvoort HA, Heijdra YF, Thijs HM, Vina J, Wanten GJ, Dekhuijzen PN: **Exercise-induced systemic effects in muscle-wasted patients with COPD.** *Med Sci Sports Exerc* 2006, **38:** 1543-1552.

121. van d, V, Postma DS, Timens W, ten Hacken NH: **Acute effects of cigarette smoke on inflammation and oxidative stress: a review.** *Thorax* 2004, **59:** 713-721.

122. van WK, Lenaerts K, van Loon LJ, Peters WH, Buurman WA, Dejong CH: **Exercise-induced splanchnic hypoperfusion results in gut dysfunction in healthy men.** *PLoS One* 2011, **6:** e22366.

123. Vliagoftis H, Kouranos VD, Betsi GI, Falagas ME: **Probiotics for the treatment of allergic rhinitis and asthma: systematic review of randomized controlled trials.** *Ann Allergy Asthma Immunol* 2008, **101:** 570-579.

124. Vogtmann E, Flores R, Yu G, Freedman ND, Shi J, Gail MH *et al*.: **Association between tobacco use and the upper gastrointestinal microbiome among Chinese men.** *Cancer Causes Control* 2015, **26:** 581-588.

125. Vollmer ME: **The sleep/wake disorders: an overview.** *Indiana Med* 1987, **80:** 440-442.

126. Weiss G, Rasmussen S, Zeuthen LH, Nielsen BN, Jarmer H, Jespersen L *et al*.: **Lactobacillus acidophilus induces virus immune defence genes in murine dendritic cells by a Toll-like receptor-2-dependent mechanism.** *Immunology* 2010, **131:** 268-281.

127. Xuan C, Shamonki JM, Chung A, Dinome ML, Chung M, Sieling PA *et al*.: **Microbial dysbiosis is associated with human breast cancer.** *PLoS One* 2014, **9:** e83744.

128. Yoo Y, Perzanowski MS: **Allergic sensitization and the environment: latest update.** *Curr Allergy Asthma Rep* 2014, **14:** 465.

130. Zhang S, Kingsley RA, Santos RL, Andrews-Polymenis H, Raffatellu M, Figueiredo J *et al.*: **Molecular pathogenesis of Salmonella enterica serotype typhimurium-induced diarrhea.** *Infect Immun* 2003, **71:** 1-12.

131. Zhao Y, Dua P, Lukiw WJ: **Microbial Sources of Amyloid and Relevance to Amyloidogenesis and Alzheimer's Disease (AD).** *J Alzheimers Dis Parkinsonism* 2015, **5:** 177.

132. Zhong L, Zhang X, Covasa M: **Emerging roles of lactic acid bacteria in protection against colorectal cancer.** *World J Gastroenterol* 2014, **20:** 7878-7886.

FOOD

1. Asp NG: **Dietary fibre--definition, chemistry and analytical determination.** *Mol Aspects Med* 1987, **9:** 17-29.

2. Backhed F, Ding H, Wang T, Hooper LV, Koh GY, Nagy A *et al*.: **The gut microbiota as an environmental factor that regulates fat storage.** *Proc Natl Acad Sci U S A* 2004, **101:** 15718-15723.

3. Beloborodova N, Bairamov I, Olenin A, Shubina V, Teplova V, Fedotcheva N: **Effect of phenolic acids of microbial origin on production of reactive oxygen species in mitochondria and neutrophils.** *J Biomed Sci* 2012, **19:** 89.

4. Bialonska D, Ramnani P, Kasimsetty SG, Muntha KR, Gibson GR, Ferreira D: **The influence of pomegranate by-product and punicalagins on selected groups of human intestinal microbiota.** *Int J Food Microbiol* 2010, **140:** 175-182.

5. Biria M, Eslami G, Taghipour E, Akbarzadeh BA: **Effects of Three Mastic Gums on the Number of Mutans Streptococci, Lactobacilli and PH of the Saliva.** *J Dent (Tehran)* 2014, **11:** 672-679.

6. BISHOP DH, KING HK: **Ubiquinone and vitamin K in bacteria. 2. Intracellular distribution in Escherichia coli and Micrococcus lysodeikticus.** *Biochem J* 1962, **85:** 550-554.

7. BISHOP DH, PANDYA KP, KING HK: **Ubiquinone and vitamin K in bacteria.** *Biochem J* 1962, **83:** 606-614.

8. Bomba A, Nemcova R, Gancarcikova S, Herich R, Pistl J, Revajova V *et al*.: **The influence of omega-3 polyunsaturated fatty acids (omega-3 pufa) on lactobacilli adhesion to the intestinal mucosa and on immunity in gnotobiotic piglets.** *Berl Munch Tierarztl Wochenschr* 2003, **116:** 312-316.

9. Boonkaewwan C, Ao M, Toskulkao C, Rao MC: **Specific immunomodulatory and secretory activities of stevioside and steviol in intestinal cells.** *J Agric Food Chem* 2008, **56:** 3777-3784.

10. Brestoff JR, Artis D: **Commensal bacteria at the interface of host metabolism and the immune system.** *Nat Immunol* 2013, **14:** 676-684.

11. Bucher Della TS, Keller A, Laure DJ, Kruseman M: **Sugar-Sweetened Beverages and Obesity Risk in Children and Adolescents: A Systematic Analysis on How Methodological Quality May Influence Conclusions.** *J Acad Nutr Diet* 2015.

12. Chambers ES, Morrison DJ, Frost G: **Control of appetite and energy intake by SCFA: what are the potential underlying mechanisms?** *Proc Nutr Soc* 2015, **74:** 328-336.

13. Champagne CP, Tompkins TA, Buckley ND, Green-Johnson JM: **Effect of fermentation by pure and mixed cultures of Streptococcus thermophilus and Lactobacillus helveticus on isoflavone and B-vitamin content of a fermented soy beverage.** *Food Microbiol* 2010, **27:** 968-972.

14. Chao SH, Tomii Y, Watanabe K, Tsai YC: **Diversity of lactic acid bacteria in fermented brines used to make stinky tofu.** *Int J Food Microbiol* 2008, **123:** 134-141.

15. Chavan S, Lakashminarayan N, Kemparaj U: **Effect of Chewing Xylitol Containing and Herbal Chewing Gums on Salivary Mutans Streptococcus Count among School Children.** *Int J Prev Med* 2015, **6:** 44.

16. Conly JM, Stein K: **The production of menaquinones (vitamin K2) by intestinal bacteria and their role in maintaining coagulation homeostasis.** *Prog Food Nutr Sci* 1992, **16:** 307-343.

17. Connor WE, Witiak DT, Stone DB, Armstrong ML: **Cholesterol balance and fecal neutral steroid and bile acid excretion in normal men fed dietary fats of different fatty acid composition.** *J Clin Invest* 1969, **48:** 1363-1375.

18. Corfe BM, Harden CJ, Bull M, Garaiova I: **The multifactorial interplay of diet, the microbiome and appetite control: current knowledge and future challenges.** *Proc Nutr Soc* 2015, **74:** 235-244.

19. Damrau F, Goldberg AH: **Adsorption of whisky congeners by activated charcoal. Chemical and clinical studies related to hangover.** *Southwest Med* 1971, **52:** 179-182.

20. Das UN: **Essential fatty acids as possible enhancers of the beneficial actions of probiotics.** *Nutrition* 2002, **18:** 786.

21. de B, I: **'Please, sir, can I have some more?' Food, lifestyle, diets: respect and moral responsibility.** *Best Pract Res Clin Gastroenterol* 2014, **28:** 235-245.

22. DeVries JW: **On defining dietary fibre.** *Proc Nutr Soc* 2003, **62:** 37-43.

23. Dorman HJ, Deans SG: **Antimicrobial agents from plants: antibacterial activity of plant volatile oils.** *J Appl Microbiol* 2000, **88:** 308-316.

24. Eick S, Schafer G, Kwiecinski J, Atrott J, Henle T, Pfister W: **Honey - a potential agent against Porphyromonas gingivalis: an in vitro study.** *BMC Oral Health* 2014, **14:** 24.

25. Emamieh S, Khaterizadeh Y, Goudarzi H, Ghasemi A, Baghban AA, Torabzadeh H: **The effect of two types chewing gum containing casein phosphopeptide-amorphous calcium phosphate and xylitol on salivary Streptococcus mutans.** *J Conserv Dent* 2015, **18:** 192-195.

26. Enujiugha VN, Badejo AA: **Probiotic Potentials of Cereal-based Beverages.** *Crit Rev Food Sci Nutr* 2015, 0.

27. Erejuwa OO, Sulaiman SA, Wahab MS: **Oligosaccharides might contribute to the antidiabetic effect of honey: a review of the literature.** *Molecules* 2011, **17:** 248-266.

28. Erejuwa OO, Sulaiman SA, Wahab MS: **Honey--a novel antidiabetic agent.** *Int J Biol Sci* 2012, **8:** 913-934.

29. Estadella D, da Penha Oller do Nascimento CM, Oyama LM, Ribeiro EB, Damaso AR, de PA: **Lipotoxicity: effects of dietary saturated and transfatty acids.** *Mediators Inflamm* 2013, **2013:** 137579.

30. Etxeberria U, Fernandez-Quintela A, Milagro FI, Aguirre L, Martinez JA, Portillo MP: **Impact of polyphenols and polyphenol-rich dietary sources on gut microbiota composition.** *J Agric Food Chem* 2013, **61:** 9517-9533.

31. Feijo FM, Ballard CR, Foletto KC, Batista BA, Neves AM, Ribeiro MF *et al.*: **Saccharin and aspartame, compared with sucrose, induce greater weight gain in adult Wistar rats, at similar total caloric intake levels.** *Appetite* 2013, **60:** 203-207.

32. Fernandez M, Hudson JA, Korpela R, de los Reyes-Gavilan CG: **Impact on human health of microorganisms present in fermented dairy products: an overview.** *Biomed Res Int* 2015, **2015:** 412714.

33. Flock MR, Green MH, Kris-Etherton PM: **Effects of adiposity on plasma lipid response to reductions in dietary saturated fatty acids and cholesterol.** *Adv Nutr* 2011, **2:** 261-274.

34. Fujisawa H, Suma K, Origuchi K, Kumagai H, Seki T, Ariga T: **Biological and chemical stability of garlic-derived allicin.** *J Agric Food Chem* 2008, **56:** 4229-4235.

35. Habib HM, Al Meqbali FT, Kamal H, Souka UD, Ibrahim WH: **Bioactive components, antioxidant and DNA damage inhibitory activities of honeys from arid regions.** *Food Chem* 2014, **153:** 28-34.

36. Hajeb P, Jinap S: **Umami taste components and their sources in Asian foods.** *Crit Rev Food Sci Nutr* 2015, **55:** 778-791.

37. Hamer HM, Jonkers D, Venema K, Vanhoutvin S, Troost FJ, Brummer RJ: **Review article: the role of butyrate on colonic function.** *Aliment Pharmacol Ther* 2008, **27:** 104-119.

38. Hayek N: **Chocolate, gut microbiota, and human health.** *Front Pharmacol* 2013, **4:** 11.

39. Heyman M: **Effect of lactic acid bacteria on diarrheal diseases.** *J Am Coll Nutr* 2000, **19:** 137S-146S.

40. Huang CB, George B, Ebersole JL: **Antimicrobial activity of n-6, n-7 and n-9 fatty acids and their esters for oral microorganisms.** *Arch Oral Biol* 2010, **55:** 555-560.

41. Huang EY, Leone VA, Devkota S, Wang Y, Brady MJ, Chang EB: **Composition of dietary fat source shapes gut microbiota architecture and alters host inflammatory mediators in mouse adipose tissue.** *JPEN J Parenter Enteral Nutr* 2013, **37:** 746-754.

42. Johnston CS, Gaas CA: **Vinegar: medicinal uses and antiglycemic effect.** *MedGenMed* 2006, **8:** 61.

43. Jones ML, Tomaro-Duchesneau C, Martoni CJ, Prakash S: **Cholesterol lowering with bile salt hydrolase-active probiotic bacteria, mechanism of action, clinical evidence, and future direction for heart health applications.** *Expert Opin Biol Ther* 2013, **13:** 631-642.

44. Joyce SA, Gahan CG: **Bile Acid Modifications at the Microbe-Host Interface: Potential for Nutraceutical and Pharmaceutical Interventions in Host Health.** *Annu Rev Food Sci Technol* 2016.

45. Kankaanpaa PE, Salminen SJ, Isolauri E, Lee YK: **The influence of polyunsaturated fatty acids on probiotic growth and adhesion.** *FEMS Microbiol Lett* 2001, **194:** 149-153.

46. Kobayashi M: **Immunological functions of soy sauce: hypoallergenicity and antiallergic activity of soy sauce.** *J Biosci Bioeng* 2005, **100:** 144-151.

47. Koenig JE, Spor A, Scalfone N, Fricker AD, Stombaugh J, Knight R *et al.*: **Succession of microbial consortia in the developing infant gut microbiome.** *Proc Natl Acad Sci U S A* 2011, **108 Suppl 1:** 4578-4585.

48. Kondo T, Kishi M, Fushimi T, Kaga T: **Acetic acid upregulates the expression of genes for fatty acid oxidation enzymes in liver to suppress body fat accumulation.** *J Agric Food Chem* 2009, **57:** 5982-5986.

49. Kontiokari T, Uhari M, Koskela M: **Effect of xylitol on growth of nasopharyngeal bacteria in vitro.** *Antimicrob Agents Chemother* 1995, **39:** 1820-1823.

50. Kurola P, Tapiainen T, Sevander J, Kaijalainen T, Leinonen M, Uhari M *et al.*: **Effect of xylitol and other carbon sources on Streptococcus pneumoniae biofilm formation and gene expression in vitro.** *APMIS* 2011, **119:** 135-142.

51. Kwon DY, Daily JW, III, Kim HJ, Park S: **Antidiabetic effects of fermented soybean products on type 2 diabetes.** *Nutr Res* 2010, **30:** 1-13.

52. Lammerts van BA, Saraf A, Martens EC, Dijkhuizen L: **Differential Metabolism of Exopolysaccharides from Probiotic Lactobacilli by the Human Gut Symbiont Bacteroides thetaiotaomicron.** *Appl Environ Microbiol* 2015, **81:** 3973-3983.

53. Laparra JM, Sanz Y: **Interactions of gut microbiota with functional food components and nutraceuticals.** *Pharmacol Res* 2010, **61:** 219-225.

54. Lefebvre P, Cariou B, Lien F, Kuipers F, Staels B: **Role of bile acids and bile acid receptors in metabolic regulation.** *Physiol Rev* 2009, **89:** 147-191.

55. Li Z, Summanen PH, Komoriya T, Henning SM, Lee RP, Carlson E *et al.*: **Pomegranate ellagitannins stimulate growth of gut bacteria in vitro: Implications for prebiotic and metabolic effects.** *Anaerobe* 2015, **34:** 164-168.

56. Lin HK, Fang CE, Huang MS, Cheng HC, Huang TW, Chang HT *et al.*: **Effect of maternal use of chewing gums containing xylitol on transmission of mutans streptococci in children: a meta-analysis of randomized controlled trials.** *Int J Paediatr Dent* 2016, **26:** 35-44.

57. Liu S, Ren F, Zhao L, Jiang L, Hao Y, Jin J *et al.*: **Starch and starch hydrolysates are favorable carbon sources for bifidobacteria in the human gut.** *BMC Microbiol* 2015, **15:** 54.

58. Liu TX, Niu HT, Zhang SY: **Intestinal Microbiota Metabolism and Atherosclerosis.** *Chin Med J (Engl)* 2015, **128:** 2805-2811.

59. Malik VS, Schulze MB, Hu FB: **Intake of sugar-sweetened beverages and weight gain: a systematic review.** *Am J Clin Nutr* 2006, **84:** 274-288.

60. Manichanh C, Eck A, Varela E, Roca J, Clemente JC, Gonzalez A *et al*.: **Anal gas evacuation and colonic microbiota in patients with flatulence: effect of diet.** *Gut* 2014, **63:** 401-408.

61. Marin JJ, Macias RI, Briz O, Banales JM, Monte MJ: **Bile Acids in Physiology, Pathology and Pharmacology.** *Curr Drug Metab* 2015, **17:** 4-29.

62. Marin L, Miguelez EM, Villar CJ, Lombo F: **Bioavailability of dietary polyphenols and gut microbiota metabolism: antimicrobial properties.** *Biomed Res Int* 2015, **2015:** 905215.

63. Martin FP, Rezzi S, Pere-Trepat E, Kamlage B, Collino S, Leibold E *et al*.: **Metabolic effects of dark chocolate consumption on energy, gut microbiota, and stress-related metabolism in free-living subjects.** *J Proteome Res* 2009, **8:** 5568-5579.

64. Martin FP, Montoliu I, Nagy K, Moco S, Collino S, Guy P *et al*.: **Specific dietary preferences are linked to differing gut microbial metabolic activity in response to dark chocolate intake.** *J Proteome Res* 2012, **11:** 6252-6263.

65. Math MV, Khadkikar RM, Kattimani YR: **Honey--a nutrient with medicinal property in reflux.** *Indian J Med Res* 2013, **138:** 1020-1021.

66. McLaughlin HP, Motherway MO, Lakshminarayanan B, Stanton C, Paul RR, Brulc J *et al*.: **Carbohydrate catabolic diversity of bifidobacteria and lactobacilli of human origin.** *Int J Food Microbiol* 2015, **203:** 109-121.

68. Moore RB, Anderson JT, Taylor HL, Keys A, Frantz ID, Jr.: **Effect of dietary fat on the fecal excretion of cholesterol and its degradation products in man.** *J Clin Invest* 1968, **47:** 1517-1534.

69. Mota AC, de Castro RD, de Araujo OJ, de Oliveira LE: **Antifungal Activity of Apple Cider Vinegar on Candida Species Involved in Denture Stomatitis.** *J Prosthodont* 2015, **24:** 296-302.

70. Mouritsen OG: **Umami flavour as a means of regulating food intake and improving nutrition and health.** *Nutr Health* 2012, **21:** 56-75.

71. Neef A, Sanz Y: **Future for probiotic science in functional food and dietary supplement development.** *Curr Opin Clin Nutr Metab Care* 2013, **16:** 679-687.

72. NIEMAN C: **Influence of trace amounts of fatty acids on the growth of microorganisms.** *Bacteriol Rev* 1954, **18:** 147-163.

73. Olofsson TC, Butler E, Markowicz P, Lindholm C, Larsson L, Vasquez A: **Lactic acid bacterial symbionts in honeybees - an unknown key to honey's antimicrobial and therapeutic activities.** *Int Wound J* 2014.

74. Palmnas MS, Cowan TE, Bomhof MR, Su J, Reimer RA, Vogel HJ *et al*.: **Low-dose aspartame consumption differentially affects gut microbiota-host metabolic interactions in the diet-induced obese rat.** *PLoS One* 2014, **9:** e109841.

75. Parkar SG, Trower TM, Stevenson DE: **Fecal microbial metabolism of polyphenols and its effects on human gut microbiota.** *Anaerobe* 2013, **23:** 12-19.

76. Pyo YH, Song SM: **Physicochemical and sensory characteristics of a medicinal soy yogurt containing health-benefit ingredients.** *J Agric Food Chem* 2009, **57:** 170-175.

77. RAGHUNANDANA RR, SRINIVASA RS, VENKATARAMAN PR: **Investigations on plant antibiotics; studies on allicin, the antibacterial principle of Allium sativum (garlic).** *J Sci Ind Res (1942)* 1946, **5:** 31-35.

78. Rastmanesh R: **High polyphenol, low probiotic diet for weight loss because of intestinal microbiota interaction.** *Chem Biol Interact* 2011, **189:** 1-8.

79. Rathore S, Salmeron I, Pandiella SS: **Production of potentially probiotic beverages using single and mixed cereal substrates fermented with lactic acid bacteria cultures.** *Food Microbiol* 2012, **30:** 239-244.

80. Renwick AG, Tarka SM: **Microbial hydrolysis of steviol glycosides.** *Food Chem Toxicol* 2008, **46 Suppl 7:** S70-S74.

81. Rhee SJ, Lee JE, Lee CH: **Importance of lactic acid bacteria in Asian fermented foods.** *Microb Cell Fact* 2011, **10 Suppl 1:** S5.

82. Rodin J: **Insulin levels, hunger, and food intake: an example of feedback loops in body weight regulation.** *Health Psychol* 1985, **4:** 1-24.

83. Saithong P, Panthavee W, Boonyaratanakornkit M, Sikkhamondhol C: **Use of a starter culture of lactic acid bacteria in plaa-som, a Thai fermented fish.** *J Biosci Bioeng* 2010, **110:** 553-557.

84. Sanchez-Castillo CP, Dewey PJ, Bourges H, James WP: **Dietary fibre, what it is and how it is measured.** *Arch Latinoam Nutr* 1994, **44:** 68-75.

85. Schiffrin EJ, Rochat F, Link-Amster H, Aeschlimann JM, Donnet-Hughes A: **Immunomodulation of human blood cells following the ingestion of lactic acid bacteria.** *J Dairy Sci* 1995, **78:** 491-497.

86. Schlichtherle-Cerny H, Amado R: **Analysis of taste-active compounds in an enzymatic hydrolysate of deamidated wheat gluten.** *J Agric Food Chem* 2002, **50:** 1515-1522.

87. Schwan RF, Wheals AE: **The microbiology of cocoa fermentation and its role in chocolate quality.** *Crit Rev Food Sci Nutr* 2004, **44:** 205-221.

88. Selhub EM, Logan AC, Bested AC: **Fermented foods, microbiota, and mental health: ancient practice meets nutritional psychiatry.** *J Physiol Anthropol* 2014, **33:** 2.

89. Simons AL, Renouf M, Hendrich S, Murphy PA: **Human gut microbial degradation of flavonoids: structure-function relationships.** *J Agric Food Chem* 2005, **53:** 4258-4263.

90. Sleeth ML, Thompson EL, Ford HE, Zac-Varghese SE, Frost G: **Free fatty acid receptor 2 and nutrient sensing: a proposed role for fibre, fermentable carbohydrates and short-chain fatty acids in appetite regulation.** *Nutr Res Rev* 2010, **23:** 135-145.

91. Spector SL: **The common cold: current therapy and natural history.** *J Allergy Clin Immunol* 1995, **95:** 1133-1138.

92. Suez J, Korem T, Zeevi D, Zilberman-Schapira G, Thaiss CA, Maza O *et al*.: **Artificial sweeteners induce glucose intolerance by altering the gut microbiota.** *Nature* 2014, **514:** 181-186.

93. Suez J, Korem T, Zilberman-Schapira G, Segal E, Elinav E: **Non-caloric artificial sweeteners and the microbiome: findings and challenges.** *Gut Microbes* 2015, **6:** 149-155.

94. Teusink B, Smid EJ: **Modelling strategies for the industrial exploitation of lactic acid bacteria.** *Nat Rev Microbiol* 2006, **4:** 46-56.

95. Torino MI, Font d, V, Mozzi F: **Biopolymers from lactic acid bacteria. Novel applications in foods and beverages.** *Front Microbiol* 2015, **6:** 834.

96. Ussher JR, Lopaschuk GD, Arduini A: **Gut microbiota metabolism of L-carnitine and cardiovascular risk.** *Atherosclerosis* 2013, **231:** 456-461.

97. van Leerdam RC, de Bok FA, Lomans BP, Stams AJ, Lens PN, Janssen AJ: **Volatile organic sulfur compounds in anaerobic sludge and sediments: biodegradation and toxicity.** *Environ Toxicol Chem* 2006, **25:** 3101-3109.

98. Vasquez A, Forsgren E, Fries I, Paxton RJ, Flaberg E, Szekely L *et al*.: **Symbionts as major modulators of insect health: lactic acid bacteria and honeybees.** *PLoS One* 2012, **7:** e33188.

99. Weaver GA, Krause JA, Miller TL, Wolin MJ: **Constancy of glucose and starch fermentations by two different human faecal microbial communities.** *Gut* 1989, **30:** 19-25.

100. Winkel C, de KA, Visser J, de RE, Bakker J, Koenig T *et al*.: **New developments in umami (enhancing) molecules.** *Chem Biodivers* 2008, **5:** 1195-1203.

101. WRANNE L: **Urinary excretion of trimethylamine and trimethylamine oxide following trimethylamine-administration to normals and to patients with liver disease.** *Acta Med Scand* 1956, **153:** 433-441.

102. Wu GD, Chen J, Hoffmann C, Bittinger K, Chen YY, Keilbaugh SA *et al*.: **Linking long-term dietary patterns with gut microbial enterotypes.** *Science* 2011, **334:** 105-108.

103. Yamaguchi S, Ninomiya K: **Umami and food palatability.** *J Nutr* 2000, **130:** 921S-926S.

DIET

1. Agwunobi AO, Reid C, Maycock P, Little RA, Carlson GL: **Insulin resistance and substrate utilization in human endotoxemia.** *J Clin Endocrinol Metab* 2000, **85:** 3770-3778.

2. Astrup A, Meinert LT, Harper A: **Atkins and other low-carbohydrate diets: hoax or an effective tool for weight loss?** *Lancet* 2004, **364:** 897-899.

3. Astrup A: **The satiating power of protein--a key to obesity prevention?** *Am J Clin Nutr* 2005, **82:** 1-2.

4. Ballard O, Morrow AL: **Human milk composition: nutrients and bioactive factors.** *Pediatr Clin North Am* 2013, **60:** 49-74.

5. Bifulco M: **Mediterranean diet: the missing link between gut microbiota and inflammatory diseases.** *Eur J Clin Nutr* 2015, **69:** 1078.

6. Bjarnason I, Williams P, So A, Zanelli GD, Levi AJ, Gumpel JM *et al.*: **Intestinal permeability and inflammation in rheumatoid arthritis: effects of non-steroidal anti-inflammatory drugs.** *Lancet* 1984, **2:** 1171-1174.

7. Bjarnason I, MacPherson A, Hollander D: **Intestinal permeability: an overview.** *Gastroenterology* 1995, **108:** 1566-1581.

8. Blachier F, Mariotti F, Huneau JF, Tome D: **Effects of amino acid-derived luminal metabolites on the colonic epithelium and physiopathological consequences.** *Amino Acids* 2007, **33:** 547-562.

9. Brown AC, Mehl-Madrona L: **Autoimmune and gastrointestinal dysfunctions: does a subset of children with autism reveal a broader connection?** *Expert Rev Gastroenterol Hepatol* 2011, **5:** 465-477.

10. Cacho N, Neu J: **Manipulation of the intestinal microbiome in newborn infants.** *Adv Nutr* 2014, **5:** 114-118.

11. Caminero A, Herran AR, Nistal E, Perez-Andres J, Vaquero L, Vivas S *et al.*: **Diversity of the cultivable human gut microbiome involved in gluten metabolism: isolation of microorganisms with potential interest for coeliac disease.** *FEMS Microbiol Ecol* 2014, **88:** 309-319.

12. Chumpitazi BP, Cope JL, Hollister EB, Tsai CM, McMeans AR, Luna RA *et al.*: **Randomised clinical trial: gut microbiome biomarkers are associated with clinical response to a low FODMAP diet in children with the irritable bowel syndrome.** *Aliment Pharmacol Ther* 2015, **42:** 418-427.

13. Clemente JC, Pehrsson EC, Blaser MJ, Sandhu K, Gao Z, Wang B *et al.*: **The microbiome of uncontacted Amerindians.** *Sci Adv* 2015, **1**.

14. Comino I, Moreno ML, Real A, Rodriguez-Herrera A, Barro F, Sousa C: **The gluten-free diet: testing alternative cereals tolerated by celiac patients.** *Nutrients* 2013, **5:** 4250-4268.

15. Craig WJ, Mangels AR: **Position of the American Dietetic Association: vegetarian diets.** *J Am Diet Assoc* 2009, **109:** 1266-1282.

16. D'Eufemia P, Celli M, Finocchiaro R, Pacifico L, Viozzi L, Zaccagnini M *et al.*: **Abnormal intestinal permeability in children with autism.** *Acta Paediatr* 1996, **85:** 1076-1079.

17. de ML, Familiari V, Pascotto A, Sapone A, Frolli A, Iardino P *et al.*: **Alterations of the intestinal barrier in patients with autism spectrum disorders and in their first-degree relatives.** *J Pediatr Gastroenterol Nutr* 2010, **51:** 418-424.

18. Del CF, Vernocchi P, Dallapiccola B, Putignani L: **Mediterranean diet and health: food effects on gut microbiota and disease control.** *Int J Mol Sci* 2014, **15:** 11678-11699.

19. Deopurkar R, Ghanim H, Friedman J, Abuaysheh S, Sia CL, Mohanty P *et al.*: **Differential effects of cream, glucose, and orange juice on inflammation, endotoxin, and the expression of Toll-like receptor-4 and suppressor of cytokine signaling-3.** *Diabetes Care* 2010, **33:** 991-997.

20. Dunlop SP, Jenkins D, Neal KR, Spiller RC: **Relative importance of enterochromaffin cell hyperplasia, anxiety, and depression in postinfectious IBS.** *Gastroenterology* 2003, **125:** 1651-1659.

21. Dunn-Emke SR, Weidner G, Pettengill EB, Marlin RO, Chi C, Ornish DM: **Nutrient adequacy of a very low-fat vegan diet.** *J Am Diet Assoc* 2005, **105:** 1442-1446.

22. Fasano A, Not T, Wang W, Uzzau S, Berti I, Tommasini A *et al.*: **Zonulin, a newly discovered modulator of intestinal permeability, and its expression in coeliac disease.** *Lancet* 2000, **355:** 1518-1519.

23. Fernandez-Feo M, Wei G, Blumenkranz G, Dewhirst FE, Schuppan D, Oppenheim FG *et al.*: **The cultivable human oral gluten-degrading microbiome and its potential implications in coeliac disease and gluten sensitivity.** *Clin Microbiol Infect* 2013, **19:** E386-E394.

24. Geypens B, Claus D, Evenepoel P, Hiele M, Maes B, Peeters M *et al.*: **Influence of dietary protein supplements on the formation of bacterial metabolites in the colon.** *Gut* 1997, **41:** 70-76.

25. Ghanim H, Abuaysheh S, Sia CL, Korzeniewski K, Chaudhuri A, Fernandez-Real JM *et al.*: **Increase in plasma endotoxin concentrations and the expression of Toll-like receptors and suppressor of cytokine signaling-3 in mononuclear cells after a high-fat, high-carbohydrate meal: implications for insulin resistance.** *Diabetes Care* 2009, **32:** 2281-2287.

26. Ghanim H, Sia CL, Upadhyay M, Korzeniewski K, Viswanathan P, Abuaysheh S *et al.*: **Orange juice neutralizes the proinflammatory effect of a high-fat, high-carbohydrate meal and prevents endotoxin increase and Toll-like receptor expression.** *Am J Clin Nutr* 2010, **91:** 940-949.

27. Ghanim H, Sia CL, Korzeniewski K, Lohano T, Abuaysheh S, Marumganti A *et al.*: **A resveratrol and polyphenol preparation suppresses oxidative and inflammatory stress response to a high-fat, high-carbohydrate meal.** *J Clin Endocrinol Metab* 2011, **96:** 1409-1414.

28. Huijbregts AW, Van SA, Van Berge-Henegouwen GP, Van der Werf SD: **Serum lipids, biliary lipid composition, and bile acid metabolism in vegetarians as compared to normal controls.** *Eur J Clin Invest* 1980, **10:** 443-449.

29. Jonsson T, Granfeldt Y, Erlanson-Albertsson C, Ahren B, Lindeberg S: **A paleolithic diet is more satiating per calorie than a mediterranean-like diet in individuals with ischemic heart disease.** *Nutr Metab (Lond)* 2010, **7:** 85.

30. Kagnoff MF: **Celiac disease pathogenesis: the plot thickens.** *Gastroenterology* 2002, **123:** 939-943.

31. Koning F: **Pathophysiology of celiac disease.** *J Pediatr Gastroenterol Nutr* 2014, **59 Suppl 1:** S1-S4.

32. Leonard MM, Vasagar B: **US perspective on gluten-related diseases.** *Clin Exp Gastroenterol* 2014, **7:** 25-37.

33. Lithell H, Vessby B, Hellsing K, Ljunghall K, Hoglund NJ, Werner I *et al*.: **Changes in metabolism during a fasting period and a subsequent vegetarian diet with particular reference to glucose metabolism.** *Ups J Med Sci* 1983, **88:** 109-119.

34. Lopez-Legarrea P, Fuller NR, Zulet MA, Martinez JA, Caterson ID: **The influence of Mediterranean, carbohydrate and high protein diets on gut microbiota composition in the treatment of obesity and associated inflammatory state.** *Asia Pac J Clin Nutr* 2014, **23:** 360-368.

35. Lunn PG, Northrop-Clewes CA, Downes RM: **Intestinal permeability, mucosal injury, and growth faltering in Gambian infants.** *Lancet* 1991, **338:** 907-910.

36. Manzel A, Muller DN, Hafler DA, Erdman SE, Linker RA, Kleinewietfeld M: **Role of "Western diet" in inflammatory autoimmune diseases.** *Curr Allergy Asthma Rep* 2014, **14:** 404.

37. Montemurno E, Cosola C, Dalfino G, Daidone G, De AM, Gobbetti M *et al*.: **What would you like to eat, Mr CKD Microbiota? A Mediterranean Diet, please!** *Kidney Blood Press Res* 2014, **39:** 114-123.

38. Ortega R: **Importance of functional foods in the Mediterranean diet.** *Public Health Nutr* 2006, **9:** 1136-1140.

39. Peluso I, Romanelli L, Palmery M: **Interactions between prebiotics, probiotics, polyunsaturated fatty acids and polyphenols: diet or supplementation for metabolic syndrome prevention?** *Int J Food Sci Nutr* 2014, **65:** 259-267.

40. Samsam M, Ahangari R, Naser SA: **Pathophysiology of autism spectrum disorders: revisiting gastrointestinal involvement and immune imbalance.** *World J Gastroenterol* 2014, **20:** 9942-9951.

41. Santoro A, Pini E, Scurti M, Palmas G, Berendsen A, Brzozowska A *et al*.: **Combating inflammaging through a Mediterranean whole diet approach: the NU-AGE project's conceptual framework and design.** *Mech Ageing Dev* 2014, **136-137:** 3-13.

42. Sellitto M, Bai G, Serena G, Fricke WF, Sturgeon C, Gajer P *et al*.: **Proof of concept of microbiome-metabolome analysis and delayed gluten exposure on celiac disease autoimmunity in genetically at-risk infants.** *PLoS One* 2012, **7:** e33387.

43. Setchell KD, Brown NM, Lydeking-Olsen E: **The clinical importance of the metabolite equol-a clue to the effectiveness of soy and its isoflavones.** *J Nutr* 2002, **132:** 3577-3584.

44. Setchell KD, Cole SJ: **Method of defining equol-producer status and its frequency among vegetarians.** *J Nutr* 2006, **136:** 2188-2193.

45. Setchell KD, Clerici C: **Equol: history, chemistry, and formation.** *J Nutr* 2010, **140:** 1355S-1362S.

46. Soler AP, Miller RD, Laughlin KV, Carp NZ, Klurfeld DM, Mullin JM: **Increased tight junctional permeability is associated with the development of colon cancer.** *Carcinogenesis* 1999, **20:** 1425-1431.

47. Spiller RC: **Postinfectious irritable bowel syndrome.** *Gastroenterology* 2003, **124:** 1662-1671.

48. Staudacher HM, Irving PM, Lomer MC, Whelan K: **Mechanisms and efficacy of dietary FODMAP restriction in IBS.** *Nat Rev Gastroenterol Hepatol* 2014, **11:** 256-266.

49. Szajewska H, Chmielewska A: **Growth of infants fed formula supplemented with Bifidobacterium lactis Bb12 or Lactobacillus GG: a systematic review of randomized controlled trials.** *BMC Pediatr* 2013, **13:** 185.

50. Tovoli F, Masi C, Guidetti E, Negrini G, Paterini P, Bolondi L: **Clinical and diagnostic aspects of gluten related disorders.** *World J Clin Cases* 2015, **3:** 275-284.

51. Troncone R, Maurano F, Rossi M, Micillo M, Greco L, Auricchio R *et al*.: **IgA antibodies to tissue transglutaminase: An effective diagnostic test for celiac disease.** *J Pediatr* 1999, **134:** 166-171.

52. van FA, Hazen MJ, van den Brandt PA, van den Bogaard AE, Hermus RJ, Janknegt RA: **Bile acids and pH values in total feces and in fecal water from habitually omnivorous and vegetarian subjects.** *Am J Clin Nutr* 1993, **58:** 917-922.

53. Vila G, Maier C, Riedl M, Nowotny P, Ludvik B, Luger A *et al*.: **Bacterial endotoxin induces biphasic changes in plasma ghrelin in healthy humans.** *J Clin Endocrinol Metab* 2007, **92:** 3930-3934.

54. Weigle DS, Breen PA, Matthys CC, Callahan HS, Meeuws KE, Burden VR *et al*.: **A high-protein diet induces sustained reductions in appetite, ad libitum caloric intake, and body weight despite compensatory changes in diurnal plasma leptin and ghrelin concentrations.** *Am J Clin Nutr* 2005, **82:** 41-48.

55. Yacyshyn B, Meddings J, Sadowski D, Bowen-Yacyshyn MB: **Multiple sclerosis patients have peripheral blood CD45RO+ B cells and increased intestinal permeability.** *Dig Dis Sci* 1996, **41:** 2493-2498.

56. Yamamoto M, Yamada T, Tanimura A: **Volatile nitrosamines in human blood before and after ingestion of a meal containing high concentrations of nitrate and secondary amines.** *Food Cosmet Toxicol* 1980, **18:** 297-299.

SEX

1. Algoe SB, Way BM: **Evidence for a role of the oxytocin system, indexed by genetic variation in CD38, in the social bonding effects of expressed gratitude.** *Soc Cogn Affect Neurosci* 2014, **9:** 1855-1861.

2. Bachner-Melman R, Ebstein RP: **The role of oxytocin and vasopressin in emotional and social behaviors.** *Handb Clin Neurol* 2014, **124:** 53-68.

3. Calil CM, Oliveira GM, Cogo K, Pereira AC, Marcondes FK, Groppo FC: **Effects of stress hormones on the production of volatile sulfur compounds by periodontopathogenic bacteria.** *Braz Oral Res* 2014, **28**.

4. Churchland PS, Winkielman P: **Modulating social behavior with oxytocin: how does it work? What does it mean?** *Horm Behav* 2012, **61:** 392-399.

5. Erdman SE, Poutahidis T: **Probiotic 'glow of health': it's more than skin deep.** *Benef Microbes* 2014, **5:** 109-119.

6. Feldman R, Gordon I, Influs M, Gutbir T, Ebstein RP: **Parental oxytocin and early caregiving jointly shape children's oxytocin response and social reciprocity.** *Neuropsychopharmacology* 2013, **38:** 1154-1162.

7. Hendrie CA, Brewer G: **Kissing as an evolutionary adaptation to protect against Human Cytomegalovirus-like teratogenesis.** *Med Hypotheses* 2010, **74:** 222-224.

8. Hughes SM, Harrison MA, Gallup GG: **Sex Differences in Romantic Kissing among College Students: An Evolutionary Perspective.** *Evolutionary Psychology* 2007, **5**.

9. Kort R, Caspers M, van de Graaf A, van EW, Keijser B, Roeselers G: **Shaping the oral microbiota through intimate kissing.** *Microbiome* 2014, **2:** 41.

10. Liu CM, Osborne BJ, Hungate BA, Shahabi K, Huibner S, Lester R *et al*.: **The semen microbiome and its relationship with local immunology and viral load in HIV infection.** *PLoS Pathog* 2014, **10:** e1004262.

11. Lopatina O, Inzhutova A, Salmina AB, Higashida H: **The roles of oxytocin and CD38 in social or parental behaviors.** *Front Neurosci* 2012, **6:** 182.

12. Ness RB, Hillier SL, Richter HE, Soper DE, Stamm C, McGregor J *et al*.: **Douching in relation to bacterial vaginosis, lactobacilli, and facultative bacteria in the vagina.** *Obstet Gynecol* 2002, **100:** 765.

13. Poutahidis T, Kearney SM, Levkovich T, Qi P, Varian BJ, Lakritz JR *et al*.: **Microbial symbionts accelerate wound healing via the neuropeptide hormone oxytocin.** *PLoS One* 2013, **8:** e78898.

14. Salmina AB, Lopatina O, Kuvacheva NV, Higashida H: **Integrative neurochemistry and neurobiology of social recognition and behavior analyzed with respect to CD38-dependent brain oxytocin secretion.** *Curr Top Med Chem* 2013, **13:** 2965-2977.

15. Slots J, Slots H: **Bacterial and viral pathogens in saliva: disease relationship and infectious risk.** *Periodontol 2000* 2011, **55:** 48-69.

16. Tridico SR, Murray DC, Addison J, Kirkbride KP, Bunce M: **Metagenomic analyses of bacteria on human hairs: a qualitative assessment for applications in forensic science.** *Investig Genet* 2014, **5:** 16.

17. Van Winkelhoff AJ, Boutaga K: **Transmission of periodontal bacteria and models of infection.** *J Clin Periodontol* 2005, **32 Suppl 6:** 16-27.

18. Van d, V, Van Winkelhoff AJ, Abbas F, Arief EM, Timmerman MF, Van der Weijden GA *et al*.: **Longitudinal evaluation of the development of periodontal destruction in spouses.** *J Clin Periodontol* 1996, **23:** 1014-1019.

19. Vrangalova Z: **Hooking up and psychological well-being in college students: short-term prospective links across different hookup definitions.** *J Sex Res* 2015, **52:** 485-498.

CHILDCARE

1. Anabrees J, Indrio F, Paes B, AlFaleh K: **Probiotics for infantile colic: a systematic review.** *BMC Pediatr* 2013, **13:** 186.

2. Ardissone AN, de la Cruz DM, Davis-Richardson AG, Rechcigl KT, Li N, Drew JC *et al.*: **Meconium microbiome analysis identifies bacteria correlated with premature birth.** *PLoS One* 2014, **9:** e90784.

3. Ballard O, Morrow AL: **Human milk composition: nutrients and bioactive factors.** *Pediatr Clin North Am* 2013, **60:** 49-74.

4. Blanc V, O'Valle F, Pozo E, Puertas A, Leon R, Mesa F: **Oral bacteria in placental tissues: increased molecular detection in pregnant periodontitis patients.** *Oral Dis* 2015, **21:** 905-912.

5. Blond JL, Lavillette D, Cheynet V, Bouton O, Oriol G, Chapel-Fernandes S *et al.*: **An envelope glycoprotein of the human endogenous retrovirus HERV-W is expressed in the human placenta and fuses cells expressing the type D mammalian retrovirus receptor.** *J Virol* 2000, **74:** 3321-3329.

6. Cacho N, Neu J: **Manipulation of the intestinal microbiome in newborn infants.** *Adv Nutr* 2014, **5:** 114-118.

7. Clifford HD, Hayden CM, Khoo SK, Zhang G, Le Souef PN, Richmond P: **CD46 measles virus receptor polymorphisms influence receptor protein expression and primary measles vaccine responses in naive Australian children.** *Clin Vaccine Immunol* 2012, **19:** 704-710.

8. de WC, Fuentes S, de Vos WM: **Crying in infants: on the possible role of intestinal microbiota in the development of colic.** *Gut Microbes* 2013, **4:** 416-421.

9. Dominguez-Bello MG, Costello EK, Contreras M, Magris M, Hidalgo G, Fierer N *et al.*: **Delivery mode shapes the acquisition and structure of the initial microbiota across multiple body habitats in newborns.** *Proc Natl Acad Sci U S A* 2010, **107:** 11971-11975.

10. Fontenot JD, Gavin MA, Rudensky AY: **Foxp3 programs the development and function of CD4+CD25+ regulatory T cells.** *Nat Immunol* 2003, **4:** 330-336.

11. Frendo JL, Olivier D, Cheynet V, Blond JL, Bouton O, Vidaud M *et al.*: **Direct involvement of HERV-W Env glycoprotein in human trophoblast cell fusion and differentiation.** *Mol Cell Biol* 2003, **23:** 3566-3574.

12. Garofalo RP, Goldman AS: **Cytokines, chemokines, and colony-stimulating factors in human milk: the 1997 update.** *Biol Neonate* 1998, **74:** 134-142.

13. Gorvel L, Textoris J, Banchereau R, Ben AA, Tantibhedhyangkul W, von BK *et al.*: **Intracellular bacteria interfere with dendritic cell functions: role of the type I interferon pathway.** *PLoS One* 2014, **9:** e99420.

14. Gosalbes MJ, Llop S, Valles Y, Moya A, Ballester F, Francino MP: **Meconium microbiota types dominated by lactic acid or enteric bacteria are differentially associated with maternal eczema and respiratory problems in infants.** *Clin Exp Allergy* 2013, **43:** 198-211.

15. Grindebacke H, Stenstad H, Quiding-Jarbrink M, Waldenstrom J, Adlerberth I, Wold AE *et al*.: **Dynamic development of homing receptor expression and memory cell differentiation of infant CD4+CD25high regulatory T cells.** *J Immunol* 2009, **183:** 4360-4370.

16. Hilty M, Qi W, Brugger SD, Frei L, Agyeman P, Frey PM *et al*.: **Nasopharyngeal microbiota in infants with acute otitis media.** *J Infect Dis* 2012, **205:** 1048-1055.

17. Hu J, Nomura Y, Bashir A, Fernandez-Hernandez H, Itzkowitz S, Pei Z *et al*.: **Diversified microbiota of meconium is affected by maternal diabetes status.** *PLoS One* 2013, **8:** e78257.

18. Johnson C, Eccles R: **Acute cooling of the feet and the onset of common cold symptoms.** *Fam Pract* 2005, **22:** 608-613.

19. Kawashti MI, Amin OR, Rowehy NG: **Possible immunological disorders in autism: concomitant autoimmunity and immune tolerance.** *Egypt J Immunol* 2006, **13:** 99-104.

20. Kelleher SL, Lonnerdal B: **Immunological activities associated with milk.** *Adv Nutr Res* 2001, **10:** 39-65.

21. Libbey JE, Coon HH, Kirkman NJ, Sweeten TL, Miller JN, Lainhart JE *et al*.: **Are there altered antibody responses to measles, mumps, or rubella viruses in autism?** *J Neurovirol* 2007, **13:** 252-259.

22. Lim ES, Zhou Y, Zhao G, Bauer IK, Droit L, Ndao IM *et al*.: **Early life dynamics of the human gut virome and bacterial microbiome in infants.** *Nat Med* 2015, **21:** 1228-1234.

23. Madan JC, Salari RC, Saxena D, Davidson L, O'Toole GA, Moore JH *et al*.: **Gut microbial colonisation in premature neonates predicts neonatal sepsis.** *Arch Dis Child Fetal Neonatal Ed* 2012, **97:** F456-F462.

24. Massilamany C, Gangaplara A, Reddy J: **Environmental microbes and uveitis: is microbial exposure always bad?** *Scand J Immunol* 2015, **81:** 469-475.

25. Matthews DM, Jenks SM: **Ingestion of Mycobacterium vaccae decreases anxiety-related behavior and improves learning in mice.** *Behav Processes* 2013, **96:** 27-35.

26. Mold JE, Michaelsson J, Burt TD, Muench MO, Beckerman KP, Busch MP *et al*.: **Maternal alloantigens promote the development of tolerogenic fetal regulatory T cells in utero.** *Science* 2008, **322:** 1562-1565.

27. Moles L, Gomez M, Heilig H, Bustos G, Fuentes S, de VW *et al*.: **Bacterial diversity in meconium of preterm neonates and evolution of their fecal microbiota during the first month of life.** *PLoS One* 2013, **8:** e66986.

28. Montagne P, Cuilliere ML, Mole C, Bene MC, Faure G: **Immunological and nutritional composition of human milk in relation to prematurity and mother's parity during the first 2 weeks of lactation.** *J Pediatr Gastroenterol Nutr* 1999, **29:** 75-80.

29. Mshvildadze M, Neu J, Shuster J, Theriaque D, Li N, Mai V: **Intestinal microbial ecology in premature infants assessed with non-culture-based techniques.** *J Pediatr* 2010, **156:** 20-25.

30. Mulder IE, Schmidt B, Lewis M, Delday M, Stokes CR, Bailey M *et al*.: **Restricting microbial exposure in early life negates the immune benefits associated with gut colonization in environments of high microbial diversity.** *PLoS One* 2011, **6:** e28279.

31. Pflugfelder SC, Stern ME: **Mucosal environmental sensors in the pathogenesis of dry eye.** *Expert Rev Clin Immunol* 2014, **10:** 1137-1140.

32. Piacentini GL, Peroni DG, Blasi F, Pescollderungg L, Goller P, Gallmetzer L *et al*.: **Atypical bacteria in adenoids and tonsils of children requiring adenotonsillectomy.** *Acta Otolaryngol* 2010, **130:** 620-625.

33. Rautava S, Luoto R, Salminen S, Isolauri E: **Microbial contact during pregnancy, intestinal colonization and human disease.** *Nat Rev Gastroenterol Hepatol* 2012, **9:** 565-576.

34. Ren T, Glatt DU, Nguyen TN, Allen EK, Early SV, Sale M *et al*.: **16S rRNA survey revealed complex bacterial communities and evidence of bacterial interference on human adenoids.** *Environ Microbiol* 2013, **15:** 535-547.

35. Rhoads JM, Fatheree NY, Norori J, Liu Y, Lucke JF, Tyson JE *et al*.: **Altered fecal microflora and increased fecal calprotectin in infants with colic.** *J Pediatr* 2009, **155:** 823-828.

36. Righetti C, Peroni DG, Pietrobelli A, Zancanaro C: **Proton nuclear magnetic resonance analysis of meconium composition in newborns.** *J Pediatr Gastroenterol Nutr* 2003, **36:** 498-501.

37. Sanz Y: **Gut microbiota and probiotics in maternal and infant health.** *Am J Clin Nutr* 2011, **94:** 2000S-2005S.

38. Savino F, Cordisco L, Tarasco V, Locatelli E, Di GD, Oggero R *et al*.: **Antagonistic effect of Lactobacillus strains against gas-producing coliforms isolated from colicky infants.** *BMC Microbiol* 2011, **11:** 157.

39. Stepinska M, Olszewska-Sosinska O, Lau-Dworak M, Zielnik-Jurkiewicz B, Trafny EA: **Identification of intracellular bacteria in adenoid and tonsil tissue specimens: the efficiency of culture versus fluorescent in situ hybridization (FISH).** *Curr Microbiol* 2014, **68:** 21-29.

40. Stout MJ, Conlon B, Landeau M, Lee I, Bower C, Zhao Q *et al*.: **Identification of intracellular bacteria in the basal plate of the human placenta in term and preterm gestations.** *Am J Obstet Gynecol* 2013, **208:** 226-227.

41. Szajewska H, Chmielewska A: **Growth of infants fed formula supplemented with Bifidobacterium lactis Bb12 or Lactobacillus GG: a systematic review of randomized controlled trials.** *BMC Pediatr* 2013, **13:** 185.

42. Urbanska M, Szajewska H: **The efficacy of Lactobacillus reuteri DSM 17938 in infants and children: a review of the current evidence.** *Eur J Pediatr* 2014, **173:** 1327-1337.

43. von HL, Hanski I, Haahtela T: **Natural immunity. Biodiversity loss and inflammatory diseases are two global megatrends that might be related.** *EMBO Rep* 2011, **12:** 1089-1093.

44. Willcox MD: **Characterization of the normal microbiota of the ocular surface.** *Exp Eye Res* 2013, **117:** 99-105.

45. Zegans ME, Van Gelder RN: **Considerations in understanding the ocular surface microbiome.** *Am J Ophthalmol* 2014, **158:** 420-422.

46. Zheng J, Xiao X, Zhang Q, Mao L, Yu M, Xu J: **The Placental Microbiome Varies in Association with Low Birth Weight in Full-Term Neonates.** *Nutrients* 2015, **7:** 6924-6937.