References Nutrition I-Mag Jan/Feb

IBS feature:

Sarah Oboh:

1. McFarland (2010) Systematic review and meta-analysis of *Saccharomyces boulardii* in adult patients. *World J Gastroenterol. 14;16 (18): 2202 – 2222.*
2. Nishida et al. (2004) Effect of yoghurt containing Bifidobacterium lactis BB-12 on improvement of defecation and fecal microflora of healthy female adults. *Milk Science; 53(2): 71-80.*
3. *Institut Rosell*, 2012, in vitro studies.
4. Waller, P.A. et al (2011) Dose-response effect of *Bifidobacterium lactis* HN019 on whole gut transit and functional gastrointestinal symptoms in adults. *Scandinavian Journal of Gastroenterology. 46: 1057 – 1064.*

Hannah Braye:

1 Distrutti E, Monaldi L, Ricci P, Fiorucci S. Gut microbiota role in irritable bowel syndrome: New therapeutic strategies. World J. Gastroenterol. 2016; **22**: 2219–41.
2 Lacy B, Patel N. Rome Criteria and a Diagnostic Approach to Irritable Bowel Syndrome. *J Clin Med* 2017; **6**: 99.
3 Longstreth GF, Thompson WG, Chey WD, Houghton LA, Mearin F, Spiller RC. Functional Bowel Disorders. *Gastroenterology* 2006; **130**: 1480–91.
4 Giorgio R, Barbara G. Is irritable bowel syndrome an inflammatory disorder? Curr. Gastroenterol. Rep. 2008; **10**: 385–90.
5 Kiank C, Taché Y, Larauche M. Stress-related modulation of inflammation in experimental models of bowel disease and post-infectious irritable bowel syndrome: Role of corticotropin-releasing factor receptors. Brain. Behav. Immun. 2010; **24**: 41–8.
6 Camilleri M, Lasch K, Zhou W. Irritable bowel syndrome: Methods, mechanisms, and pathophysiology. the confluence of increased permeability, inflammation, and pain in irritable bowel syndrome. Am. J. Physiol. - Gastrointest. Liver Physiol. 2012; **303**. DOI:10.1152/ajpgi.00155.2012.
7 Mayer EA, Gebhart GF. Basic and clinical aspects of visceral hyperalgesia. Gastroenterology. 1994; **107**: 271–93.
8 Portincasa P, Bonfrate L, de Bari O, Lembo A, Ballou S. Irritable bowel syndrome and diet. *Gastroenterol Rep* 2017; **5**: 11–9.
9 Chassaing B, Koren O, Goodrich J, *et al.* Dietary emulsifiers impact the mouse gut microbiota promoting colitis and metabolic syndrome. *Nature* 2015; **519**: 92.
10 Goncagul G, Ayaz E. Antimicrobial effect of garlic (Allium sativum). *Recent Pat Antiinfect Drug Discov* 2010; **5**: 91–3.
11 Rao R, Samak G. Role of Glutamine in Protection of Intestinal Epithelial Tight Junctions. *J Epithel Biol Pharmacol* 2012; **5**: 47–54.
12 Chen Q, Chen O, Martins IM, *et al.* Collagen peptides ameliorate intestinal epithelial barrier dysfunction in immunostimulatory Caco-2 cell monolayers via enhancing tight junctions. *Food Funct* 2017; **8**: 1144–51.
13 Xiao S, Li Q, Hu K, *et al.* Vitamin A and Retinoic Acid Exhibit Protective Effects

on Necrotizing Enterocolitis by Regulating Intestinal Flora and Enhancing the Intestinal Epithelial Barrier. *Arch Med Res* 2018; **49**: 1–9.
14 He L, Liu T, Shi Y, *et al.* Gut Epithelial Vitamin D Receptor Regulates Microbiota-Dependent Mucosal Inflammation by Suppressing Intestinal Epithelial Cell Apoptosis. *Endocrinology* 2018; **159**: 967–79.
15 Miyoshi Y, Tanabe S, Suzuki T. Cellular zinc is required for intestinal epithelial barrier maintenance via the regulation of claudin-3 and occludin expression. *Am J Physiol Liver Physiol* 2016; **311**: G105–16.
16 De Santis S, Cavalcanti E, Mastronardi M, Jirillo E, Chieppa M. Nutritional Keys for Intestinal Barrier Modulation. *Front Immunol* 2015; **6**: 612.
17 Kinsinger SW. Cognitive-behavioral therapy for patients with irritable bowel syndrome: current insights. *Psychol Res Behav Manag* 2017; **10**: 231–7.
18 Bermudez-Brito M, Plaza-Díaz J, Muñoz-Quezada S, Gómez-Llorente C, Gil A. Probiotic mechanisms of action. *Ann Nutr Metab* 2012; **61**: 160–74.
19 Pirbaglou M, Katz J, de Souza RJ, Stearns JC, Motamed M, Ritvo P. Probiotic supplementation can positively affect anxiety and depressive symptoms: a systematic review of randomized controlled trials. *Nutr Res* 2016; **36**: 889–98.
20 Rodiño-Janeiro BK, Vicario M, Alonso-Cotoner C, Pascua-García R, Santos J. A Review of Microbiota and Irritable Bowel Syndrome: Future in Therapies. Adv. Ther. 2018; **35**: 289–310.
21 McKenzie YA, Thompson J, Gulia P, Lomer MCE. British Dietetic Association systematic review of systematic reviews and evidence-based practice guidelines for the use of probiotics in the management of irritable bowel syndrome in adults (2016 update). *J Hum Nutr Diet* 2016; **29**: 576–92.
22 Ishaque SM, Khosruzzaman SM, Ahmed DS, Sah MP. A randomized placebo-controlled clinical trial of a multi-strain probiotic formulation (Bio-Kult®) in the management of diarrhea-predominant irritable bowel syndrome. *BMC Gastroenterol* 2018; **18**: 71.

Roma Bansil:

1 Agrawal, Whorwell. Irritable bowel syndrome: diagnosis and management. BMJ. 2006; 332: 280-83.

1 Benjamin I. Brown. Does Irritable Bowel Syndrome Exist? Identifiable and Treatable Causes of Associated Symptoms Suggest It May Not. Gastrointest. Disord. 2019, 1(3), 314-340

1 Barbara et al. New pathophysiological mechanisms in irritable bowel syndrome. Aliment Pharmacol Ther. 2004; 20 (Suppl 2): 1-9.

1 Jones et al. British Society of Gastroenterology guidelines for the management of the irritable bowel syndrome. Gut. 2000; 47 (Suppl 2): ii1-ii19.

1 Möndel M, Et al. Probiotic E. coli treatment mediates antimicrobial human beta-defensin synthesis and fecal excretion in humans. Mucosal Immunol. 2009 Mar;2(2):166-72.

1 Lamprecht M et al. Probiotic supplementation affects markers of intestinal barrier, oxidation, and inflammation in trained men; a randomized, double-blinded, placebo-controlled trial. J Int Soc Sports Nutr. 2012 Sep 20;9(1):45.

1 Sierra et al. Intestinal and immunological effects of daily oral administration of Lactobacillus salivarius CECT5713 to healthy adults. Anaerobe. 2010 Jun;16(3):195-200

1 O'Callaghan J Influence of adhesion and bacteriocin production by Lactobacillus salivarius on the intestinal epithelial cell transcriptional response.Appl Environ Microbiol. 2012 Aug;78(15):5196-203.

1 Smith A et al. Effect of a synbiotic on microbial community structure in a continuous culture model of the gastric microbiota in enteral nutrition patients Microbiol Ecol (2012) 80; 135–145.

1 Platel, Srinivasan. Influence of dietary spices or their active principles on digestive enzymes of small intestinal mucosa in rats. Int J Food Sci Nutr. 1996; 47 (1): 55-9.

1 De-Souza DA, Greene LJ. Intestinal permeability and systemic infections in critically ill patients: Effect of glutamine. Crit Care Med. 2005 May;33(5):1125-35.

1 Foitzik T, Stufler M, Hotz HG, Klinnert J, Wagner J, Warshaw AL, et al. Glutamine stabilizes intestinal permeability and reduces pancreatic infection in acute experimental pancreatitis. J Gastrointest Surg. 1997 Jan-Feb;1(1):40,6; discussion 46-7

1 Rapin JR et al, Possible Links between Intestinal Permeablity and Food Processing: A Potential Therapeutic Niche for Glutamine**.** Clinics 2010;65(6).

1 Gibson GR, Beatty ER, Wang X & Cummings JH. Selective stimulation of bifidobacteria in the human colon by oligofructose and inulin. Gastroenterol. 1995 108:975-982.

1 Roberfroid et al 1998()//Roberfroid MB1, Van Loo JA, Gibson GR. The bifidogenic nature of chicory inulin and its hydrolysis products. J Nutr. 1998; 128(1):11-9.

1 Russo et al. Inulin-enriched pasta improves intestinal permeability and modifies the circulating levels of zonulin and glucagon-like peptide 2 in healthy young volunteers. Nutr. Res. 2012 Dec; 32 (12): 940-6

1 Kleessen et al. Oligofructose and long-chain inulin: influence on the gut microbial ecology of rats associated with a human faecal flora. Br J Nutr. 2001 Aug; 86 (2): 291-300

1 Scott et al. Prebiotic stimulation of human colonic butyrate-producing bacteria and Bifidobacteria in vitro. FEMS Microbiol Ecol. 2014 Jan; 87 (1): 30-40

1 Fasano, A. Zonulin, regulation of tight junctions and autoimmune diseases. Ann N Y Acad Sci. 2012 Jul; 1258: 25-33

1 Kleessen et al. Oligofructose and long-chain inulin: influence on the gut microbial ecology of rats associated with a human faecal flora. Br J Nutr. 2001 Aug; 86 (2): 291-300

1 Titgemeyer et al. Fermentability of various fiber sources by human fecal bacteria in vitro. Am J Clin Nutr. 1991 Jun; 53 (6): 1418-24

1 Salvatore S, et al. A pilot study of N-acetyl glucosamine, a nutritional substrate for glycosaminoglycan synthesis, in paediatric chronic inflammatory bowel disease. Aliment Pharmacol Ther. 2000;14(12):1567-79.

1 Jakolev et al. Pharmacological investigations with compounds of chamomile. II. New investigations on the antiphlogistic effects of (-)-alpha-bisabolol and bisabolol oxides. Planta Med. 1979; 35: 125-40.

1 Wang et al. A metabonomic strategy for the detection of the metabolic effects of chamomile (Matricaria recutita L.) ingestion. J Agric Food Chem. 2005; 53: 191-6.

1 Forster et al. Antispasmodic effects of some medicinal plants. Plant Med. 1980; 40: 303-19.

UTI feature:

Hannah Braye:

1 Ronald A. The etiology of urinary tract infection: Traditional and emerging pathogens. *Disease-a-Month* 2003; **49**: 71–82.

2 Kontiokari T, Nuutinen M, Uhari M. Dietary factors affecting susceptibility to urinary tract infection. *Pediatr Nephrol* 2004; **19**: 378–83.

3 Scholes D, Hooton TM, Roberts PL, Stapleton AE, Gupta K, Stamm WE. Risk Factors for Recurrent Urinary Tract Infection in Young Women. *J Infect Dis* 2000; **182**: 1177–82.

4 Medina M, Castillo-Pino E. An introduction to the epidemiology and burden of urinary tract infections. *Ther Adv Urol* 2019; **11**: 175628721983217.

5 Bates J, Thomas-Jones E, Pickles T, *et al.* Point of care testing for urinary tract infection in primary care (POETIC): Protocol for a randomised controlled trial of the clinical and cost effectiveness of FLEXICULTTM informed management of uncomplicated UTI in primary care. *BMC Fam Pract* 2014; **15**. DOI:10.1186/s12875-014-0187-4.

6 Harrington RD, Hooton TM. Urinary tract infection risk factors and gender. *J Gend Specif Med* 2000; **3**: 27–34.

7 Kostakioti M, Hultgren SJ, Hadjifrangiskou M. Molecular blueprint of uropathogenic Escherichia coli virulence provides clues toward the development of anti-virulence therapeutics. *Virulence* 2012; **3**: 592–4.

8 Urinary tract infections in adults - NHS.UK. https://www.nhs.uk/conditions/urinary-tract-infections-utis/ (accessed Dec 22, 2017).

9 Callaway TR, Elder RO, Keen JE, Anderson RC, Nisbet DJ. Forage Feeding to Reduce Preharvest Escherichia coli Populations in Cattle, a Review. *J Dairy Sci* 2003; **86**: 852–60.

10 Nitzan O, Elias M, Chazan B, Saliba W. Urinary tract infections in patients with type 2 diabetes mellitus: review of prevalence, diagnosis, and management. *Diabetes Metab Syndr Obes* 2015; **8**: 129–36.

11 Kaminogawa S, Nanno M. Modulation of Immune Functions by Foods. *Evid Based Complement Alternat Med* 2004; **1**: 241–50.

12 Kontiokari T, Laitinen J, Järvi L, Pokka T, Sundqvist K, Uhari M. Dietary factors protecting women from urinary tract infection. *Am J Clin Nutr* 2003; **77**: 600–4.

13 Beerepoot, M., Terriet, G., Nys, S., Vanderwal, W., Deborgie, C., Dereijke, T., Prins, J., Koeijers, J., Verbon, A., Stobberingh, E., Geerlings S, Kapoor A, Hsia IK, *et al.* Cranberry or trimethoprim for the prevention of recurrent urinary tract infections? A randomized controlled trial in older women. *Arch Intern Med* 2003; **46**: 500.

14 Abraham SN, Miao Y. The nature of immune responses to urinary tract infections. *Nat Rev Immunol* 2015; **15**: 655–63.

15 Molina PE, Happel KI, Zhang P, Kolls JK, Nelson S. Focus on: Alcohol and the immune system. *Alcohol Res Health* 2010; **33**: 97–108.

16 Qiu F, Liang C-L, Liu H, *et al.* Impacts of cigarette smoking on immune responsiveness: Up and down or upside down? *Oncotarget* 2017; **8**: 268–84.

17 McMurdo MET, Argo I, Phillips G, Daly F, Davey P. Cranberry or trimethoprim for the prevention of recurrent urinary tract infections? A randomized controlled trial in older women. *J Antimicrob Chemother* 2008; **63**: 389–95.

18 Domenici L, Monti M, Bracchi C, *et al.* D-mannose: a promising support for

acute urinary tract infections in women. A pilot study. *Eur Rev Med Pharmacol Sci* 2016; **20**: 2920–5.
19 Altarac S, Papeš D. Use of d-mannose in prophylaxis of recurrent urinary tract infections (UTIs) in women. *BJU Int* 2014; **113**: 9–10.
20 Reid G, Beuerman D, Heinemann C, Bruce AW. Lactobacillus dose required to restore and maintain a normal vaginal flora. *FEMS Immunol Med Microbiol* 2001; **32**: 37–41.
21 Koradia P, Kapadia S, Trivedi Y, Chanchu G, Harper A. Probiotic and cranberry supplementation for preventing recurrent uncomplicated urinary tract infections in premenopausal women: a controlled pilot study. *Expert Rev Anti Infect Ther* 2019; : 1–8.

Rose Holmes:

1 Rabbani GH, Butler T, Knight J, Sanyal SC, Alam K (1987) Randomized controlled trial of berberine sulphate therapy for diarrhea due to enterotoxigenic *Escherichia coli* and *Vibrio cholera*. J Infect Dis 155(5):979-984.
ii Sun D, Abraham SN, Beachey EH (1988) Influence of Berberine Sulfate on Synthesis and Expression of Pap Fimbrial Adhesin in Uropathogenic *Escherichia coli*. Antimicrobial Agents and Chemotherapy 12(8):1274-1277.
iii Bag A, Bhattacharyya SK, Chattopadhyay (2008) Medicinal Plants and Urinary Tract Infections: An update. Phcog Rev 2(4):277-284.
iv Head KA (2008) Natural Approaches to Prevention and Treatment of Infections of the Lower Urinary Tract. Alt Med Rev 13(3):227-244.
V Manges AR, Smith SP, Lau BJ, Nuval CJ, Eisenberg JNS, Dietrich PS, Riley LW (2007) Retail Meat Consumption and the Acquisition of Antimicrobial Resistant *Escherichia coli* Causing Urinary Tract Infections: A Case-Control Study. Foodborne Pathogens and Disease 4(4):419-431.
vi Manges AR, Smith SP, Lau BJ, Nuval CJ, Eisenberg JNS, Dietrich PS, Riley LW (2007) Retail Meat Consumption and the Acquisition of Antimicrobial Resistant *Escherichia coli* Causing Urinary Tract Infections: A Case-Control Study. Foodborne Pathogens and Disease 4(4):419-431.
vii Kontiokari T Laitinen J, Jarvi L, Pokka T, Sundqvist K, Uhari M (2003) Dietary factors protecting women from urinary tract infection. Am J Clin Nutr 77:600-604.

Superfoods feature:

Rose Holmes:

i Zeng Y, Pu X, Yang , Du J, Yang X, Li X, Li L, Zhou Y, Yang T (2018) Preventive and Therapeutic Role of Functional Ingredients of Barley Grass for Chronic Diseases in Human Beings. Oxidative Medicine and Cellular Longevity 2018:3232080
iiii Magadi VP, Ravi V, Arpitha A, Litha, Kumaraswamy K, Manjunath K (2015) Evalulation of cytotoxicity of aqueous extract of Graviola leaves on squamous cell carcinoma cell-25 cell lines by 3-(4,5-dimethylthiazol-2-YI)-2,5-diphenyltetrazolium bromide assay and determination of percentage of cell inhibition at G2M phase of cell cycle by flow cytometry: An in vitro study. Contemp Clin Dent 6(4):529-533.
iii Neri-Numa IA, Sancho RAS, Pereira APA, Pastore GM (2018) Small Brazilian wild fruits: Nutrients, bioactive compounds, health-promotion properties and commercial interest. Food Research International 103:345-360.

[iv] Neri-Numa IA, Sancho RAS, Pereira APA, Pastore GM (2018) Small Brazilian wild fruits: Nutrients, bioactive compounds, health-promotion properties and commercial interest. Food Research International 103:345-360.

Ingredient spotlight:

1. Portbury SD, Adlard PA. Zinc Signal in Brain Diseases. *Int J Mol Sci* 2017; **18**(12).
2. Maret W, Sandstead HH. Zinc requirements and the risks and benefits of zinc supplementation. *J Trace Elem Med Biol* 2006; **20**(1):3-18.
3. EFSA Journal 2009; 7(9):1229. https://efsa.onlinelibrary.wiley.com/doi/pdf/10.2903/j.efsa.2009.1229
4. Bao B, Prasad AS, *et al*. Zinc decreases C-reactive protein, lipid peroxidation, and inflammatory cytokines in elderly subjects: a potential implication of zinc as an atheroprotective agent. *Am J Clin Nutr* 2010;**91**(6):1634–1641.
5. Szewczyk B. Zinc homeostasis and neurodegenerative disorders. *Front Aging Neurosci* 2013;**5**:33.
6. Roozendaal B, McGaugh JL. Memory modulation. *Behav Neurosci* 2011;**125**(6):797-824.
7. Barrett E, Ross RP, O'Toole PW, Fitzgerald GF, Stanton C. γ-Aminobutyric acid production by culturable bacteria from the human intestine. *J Appl Microbiol* 2012;**113**(2):411-7.
8. Travaglia A, La Mendola D. Zinc Interactions With Brain-Derived Neurotrophic Factor and Related Peptide Fragments. *Vitam Horm* 2017;**104**:29-56.
9. de Moura JE, de Moura EN, Alves CX, *et al*. Oral zinc supplementation may improve cognitive function in schoolchildren. *Biol Trace Elem Res* 2013; **155**(1):23-8.
10. Tupe RP, Chiplonkar SA. Zinc supplementation improved cognitive performance and taste acuity in Indian adolescent girls. *J Am Coll Nutr* 2009; **28**(4):388-96.
11. Hotz H, 2006. Zinc: Deficiency in developing countries, intervention studies. In: Encyclopedia of Human Nutrition. Caballero B, Allen L, Prentice A (eds.). Academic Press, San Diego, 454-462.
12. Maylor EA, Simpson EE, Secker DL, *et al*. Effects of zinc supplementation on cognitive function in healthy middle-aged and older adults: the ZENITH study. *Br J Nutr* 2006; **96**(4):752-60.
13. Brewer GJ. Copper excess, zinc deficiency, and cognition loss in Alzheimer's disease. *Biofactors* 2012; **38**(2):107-13.
14. Baum MK, Shor-Posner G, Campa A. Zinc status in human immunodeficiency virus infection. *J Nutr* 2000;**130**(5S Suppl):1421S-1423S.
15. Maares M, Haase H. Zinc and immunity: An essential interrelation. *Arch Biochem Biophys* 2016;**611**:58-65.
16. Liu E, Pimpin L, Shulkin M, *et al*. Effect of Zinc Supplementation on Growth Outcomes in Children under 5 Years of Age. *Nutrients* 2018;**10**(3).
17. Nuttall JR, Oteiza PI. Zinc and the aging brain. *Genes Nutr* 2014; **9**(1):379.
18. Ventriglia M, Brewer GJ, Simonelli I, *et al*. Zinc in Alzheimer's Disease: A Meta-Analysis of Serum, Plasma, and Cerebrospinal Fluid Studies. *J Alzheimers Dis* 2015; **46**(1):75-87.
19. Brewer GJ, Kanzer SH, Zimmerman EA, *et al*. Subclinical zinc deficiency in Alzheimer's disease and Parkinson's disease. *Am J Alzheimers Dis Other Demen* 2010;**25**(7):572-5.

20. Sun H, Liu X, Ge H, Wang T, Wang Y, Li W. Association Between Serum Zinc Levels and the Risk of Parkinson's Disease: a Meta-Analysis. *Biol Trace Elem Res* 2017;**179**(1):45-51.
21. Rink L, Gabriel P. Zinc and the immune system. *Proc Nutr Soc* 2000;**59**(4):541-52.
22. Linus Pauling Institute. Micronutrient Information Center. Zinc. https://lpi.oregonstate.edu/mic/minerals/zinc (accessed 10 December 2019)
23. Lönnerdal B. Dietary factors influencing zinc absorption. *J Nutr* 2000;**130**(5S Suppl):1378S-83S.
24. Foster M, Samman S. Vegetarian diets across the lifecycle: impact on zinc intake and status. *Adv Food Nutr Res* 2015;**74**:93-131.
25. Mocchegiani E, Romeo J, Malavolta M, *et al*. Zinc: dietary intake and impact of supplementation on immune function in elderly. *Age (Dordr)* 2013;**35**(3):839-860.
26. Wegmüller R, Tay F, Zeder C, Brnic M, Hurrell RF. Zinc absorption by young adults from supplemental zinc citrate is comparable with that from zinc gluconate and higher than from zinc oxide. *J Nutr* 2014;**144**(2):132-6.
27. EFSA. Tolerable Upper Intake Levels for Vitamins and Minerals. 2006 DOI:10.2903/j.efsa.2004.60.
28. Food and Nutrition Board, Institute of Medicine. Zinc. Dietary reference intakes for vitamin A, vitamin K, boron, chromium, copper, iodine, iron, manganese, molybdenum, nickel, silicon, vanadium, and zinc. Washington, D.C.: National Academy Press; 2001:442-501. (National Academy Press)
29. Zinc — Health Professional Fact Sheet. https://ods.od.nih.gov/factsheets/Zinc-HealthProfessional/ (acessed 1 November 2019)
30. Expert Group on Vitamins and Minerals (EVM). Expert group on vitamins and minerals. *Expert Gr Vitam Miner* 2003; : 360.