1. Leclerc H, Schwartzbrod L, Dei-Cas E: **Microbial agents associated with waterborne diseases**. *Crit Rev Microbiol* 2002, **28**(4):371-409.

2. Collier SA, Stockman LJ, Hicks LA, Garrison LE, Zhou FJ, Beach MJ: **Direct healthcare costs of selected diseases primarily or partially transmitted by water**. *Epidemiol Infect* 2012, **140**(11):2003-2013.

3. Ashbolt NJ: **Microbial contamination of drinking water and human health from community water systems**. *Curr Environ Health Rep* 2015, **2**(1):95-106.

4. Israeli Ministry of Health: **People's health regulation - sanitary quality of drinking water and drinking water facilities.** 2013 (in hebrew).

5. Israeli Ministry of Health: **Standards of water sampling.** 2016 (in hebrew)..

6. Israeli Ministry of Health: **Instructions for plan application, operating and monitoring of drinking water treatment facility.** 2017 (in hebrew).

7. Rompré A, Servais P, Baudart J, de-Roubin MR, Laurent P: **Detection and enumeration of coliforms in drinking water: current methods and emerging approaches**. *J Microbiol Meth* 2002, **49**(1):31-54.

8. Edberg SC, Rice EW, Karlin RJ, Allen MJ: **Escherichia coli: the best biological drinking water indicator for public health protection**. *Symp Ser Soc Appl Microbiol* 2000(29):106S-116S.

9. Hennekinne JA, De Buyser ML, Dragacci S: **Staphylococcus aureus and its food poisoning toxins: characterization and outbreak investigation**. *FEMS Microbiol Rev* 2012, **36**(4):815-836.

10. Cabral JP: **Water microbiology. Bacterial pathogens and water**. *Int J Environ Res Public Health* 2010, **7**(10):3657-3703.

11. Jarvis RM, Goodacre R: **Discrimination of bacteria using surface-enhanced Raman spectroscopy**. *Anal Chem* 2004, **76**(1):40-47.

12. Willemse-Erix DF, Scholtes-Timmerman MJ, Jachtenberg JW, van Leeuwen WB, Horst-Kreft D, Bakker Schut TC, Deurenberg RH, Puppels GJ, van Belkum A, Vos MC: **Optical fingerprinting in bacterial epidemiology: Raman spectroscopy as a real-time typing method**. *J Clin Microbiol* 2009, **47**(3):652-659.

13. Nobelprize.org: **Sir Chandrasekhara Venkata Raman – biographical.** Nobel Media AB 2014.

14. Bernhard S: **Special techniques and applications**. In: *Infrared and Raman Spectroscopy - Methods and Application.* Edited by Bernhard S. Weinheim, Federal Republic of Germany: VCH Verlagsgesellschaft; 1995.

15. Kaiser Optical Systems: **Raman spectroscopy - a tutorial**. Retrieved from *kosi.com/na\_en/products/raman-spectroscopy/raman-technical-resources/raman-tutorial.php*

16. Stöckel S, Kirchhoff J, Neugebauer U, Röscha P, Popp J: **The application of Raman spectroscopy for the  detection and identification of microorganisms***J Raman Spectrosc* 2015(47):89-109.

17. Pahlow S, Meisel S, Cialla-May D, Weber K, Rösch P, Popp J: **Isolation and identification of bacteria by means of Raman spectroscopy**. *Adv Drug Deliv Rev* 2015, **89**:105-120.

18. Zeiri L, Bronk BV, Shabtai Y, Eichler J, Efrima S: **Surface-enhanced Raman spectroscopy as a tool for probing specific biochemical components in bacteria**. *Appl Spectrosc* 2004, **58**(1):33-40.

19. Zeiri L, Efrima S: **Surface-enhanced Raman spectroscopy of bacteria: the effect of excitation wavelength and chemical modification of the colloidal milieu**. *J Raman Spectrosc* 2005, **36**(6-7):667-675.

20. Premasiri WR, Chen Y, Williamson PM, Bandarage DC, Pyles C, Ziegler LD: **Rapid urinary tract infection diagnostics by surface-enhanced Raman spectroscopy (SERS): identification and antibiotic susceptibilities**. *Anal Bioanal Chem* 2017, **409**(11):3043-3054.

21. Nicolaou N, Xu Y, Goodacre R: **Fourier transform infrared and Raman spectroscopies for the rapid detection, enumeration, and growth interaction of the bacteria Staphylococcus aureus and Lactococcus lactis ssp. cremoris in milk**. *Anal Chem* 2011, **83**(14):5681-5687.

22. Chen F, Flaherty BR, Cohen CE, Peterson DS, Zhao Y: **Direct detection of malaria infected red blood cells by surface enhanced Raman spectroscopy**. *Nanomedicine* 2016, **12**(6):1445-1451.

23. Kusić D, Kampe B, Ramoji A, Neugebauer U, Rösch P, Popp J: **Raman spectroscopic differentiation of planktonic bacteria and biofilms**. *Anal Bioanal Chem* 2015, **407**(22):6803-6813.

24. Fehrmann A, Franz M, Hoffmann A, Rudzik L, Wüst E: **Dairy product analysis: identification of microorganisms by mid-infrared spectroscopy and determination of constituents by Raman spectroscopy**. *J AOAC Int* 1995, **78**(6):1537-1542.

25. Maquelin K, Choo-Smith LP, van Vreeswijk T, Endtz HP, Smith B, Bennett R, Bruining HA, Puppels GJ: **Raman spectroscopic method for identification of clinically relevant microorganisms growing on solid culture medium**. *Anal Chem* 2000, **72**(1):12-19.

26. Meisel S, Stöckel S, Elschner M, Melzer F, Rösch P, Popp J: **Raman spectroscopy as a potential tool for detection of Brucella spp. in milk**. *Appl Environ Microbiol* 2012, **78**(16):5575-5583.

27. Albanell E, Cáceres P, Caja G, Molina E, Gargouri A: **Determination of fat, protein, and total solids in ovine milk by near-infrared spectroscopy**. *J AOAC Int* 1999, **82**(3):753-758.

28. Meisel S, Stöckel S, Rösch P, Popp J: **Identification of meat-associated pathogens via Raman microspectroscopy**. *Food Microbiol* 2014, **38**:36-43.

29. Wang J, Xie X, Feng J, Chen JC, Du XJ, Luo J, Lu X, Wang S: **Rapid detection of Listeria monocytogenes in milk using confocal micro-Raman spectroscopy and chemometric analysis**. *Int J Food Microbiol* 2015, **204**:66-74.

30. Sundaram J, Park B, Hinton A, Lawrence KC, Kwon Y: **Detection and differentiation of Salmonella serotypes using surface enhanced Raman scattering (SERS) technique**. *J Food Meas Charact* 2013, **7**(1):1-12.

31. Su LH, Chiu CH: **Salmonella: clinical importance and evolution of nomenclature**. *Chang Gung Med J* 2007, **30**(3):210-219.

32. Sundaram J, Park B, Kwon Y, Lawrence KC: **Surface enhanced Raman scattering (SERS) with biopolymer encapsulated silver nanosubstrates for rapid detection of foodborne pathogens**. *Int J Food Microbiol* 2013, **167**(1):67-73.

33. Jarvis RM, Brooker A, Goodacre R: **Surface-enhanced Raman scattering for the rapid discrimination of bacteria**. *Faraday Discuss* 2006, **132**:281-292; discussion 309-219.

34. Jarvis RM, Brooker A, Goodacre R: **Surface-enhanced Raman spectroscopy for bacterial discrimination utilizing a scanning electron microscope with a Raman spectroscopy interface**. *Anal Chem* 2004, **76**(17):5198-5202.

35. Kumar S, Verma T, Mukherjee R, Ariese F, Somasundaram K, Umapathy S: **Raman and infra-red microspectroscopy: towards quantitative evaluation for clinical research by ratiometric analysis**. *Chem Soc Rev* 2016, **45**(7):1879-1900.

36. Zhou H, Yang D, Ivleva NP, Mircescu NE, Niessner R, Haisch C: **SERS detection of bacteria in water by in situ coating with Ag nanoparticles**. *Anal Chem* 2014, **86**(3):1525-1533.

37. Witkowska E, Korsak D, Kowalska A, Księżopolska-Gocalska M, Niedziółka-Jönsson J, Roźniecka E, Michałowicz W, Albrycht P, Podrażka M, Hołyst R *et al*: **Surface-enhanced Raman spectroscopy introduced into the International Standard Organization (ISO) regulations as an alternative method for detection and identification of pathogens in the food industry**. *Anal Bioanal Chem* 2016.

38. Schmilovitch Z, Mizrach A, Alchanatis V, Kritzman G, Korotic R, Irudayaraj J, Debroy C: **Detection of bacteria with low-resolution Raman spectroscopy.** *Trans ASAE* 2005, **48**(5):1843-1850.

39. Mello C, Ribeiro D, Novaes F, Poppi RJ: **Rapid differentiation among bacteria that cause gastroenteritis by use of low-resolution Raman spectroscopy and PLS discriminant analysis**. *Anal Bioanal Chem* 2005, **383**(4):701-706.

40. Luo BS, Lin MIN: **A portable Raman system for the identification of foodborne pathogenic bacteria**. *J Rapid Methods Autom Microbiol* 2008, **16**(3):238-255.

41. Lakowicz JR: **Introduction to Fluorescence**. In: *Principles of Fluorescence Spectroscopy, 3rd ed.* Edited by Joseph R. Lakowicz, Maryland, USA: Springer; 2006.

42. Stedmon C, Seredynska-Sobecka B, Boe-Hansen R, Le Tallec N, Waul C, Arvin E: **A potential approach for monitoring drinking water quality from groundwater systems using organic matter fluorescence as an early warning for contamination events**. *Water Res* 2011, **45**(18):6030-6038.

43. Stedmon C, Markager S, Bro R: **Tracing dissolved organic matter in aquatic environments using a new approach to fluorescence spectroscopy**. *Mar Chem* 2003, **82**(3-4):239-254.

44. Borisover M, Laor Y, Parparov A, Bukhanovsky N, Lado M: **Spatial and seasonal patterns of fluorescent organic matter in Lake Kinneret (Sea of Galilee) and its catchment basin**. *Water Res* 2009, **43**(12):3104-3116.

45. Hua B, Dolan F, Mcghee C, Clevenger T, Deng B: **Water-source characterization and classification with fluorescence EEM spectroscopy: PARAFAC analysis**. *Int J Environ Anal Chem* 2007, **87**(2):135-147.

46. Gueguen C, Granskog M, McCullough G, Barber D: **Characterisation of colored dissolved organic matter in Hudson Bay and Hudson Strait using parallel factor analysis**. *J Mar Syst* 2011, **88**(3):423-433.

47. Simelane KS: **Application of Fluorescence Spectroscopy for Monitoring Microbial Contamination of Drinking Water**. MSc Thesis:Hebrew University of Jerusalem; 2013.

48. Ignat T, Schmilovitch Z, Fofoldi J, Steiner B, Alkalai-Tuvia S: **Non-destructive measurement of ascorbic acid content in bell peppers by VIS-NIR and SWIR spectrometry.** *Postharvest Biol Technol* 2012, **74**(10): 91-99.