Appendix I: Web Resources

Chapter 1

- FSTA®:
  - an intelligence service constantly monitoring developments in the areas of food science, food technology and nutrition
  - http://www.foodsciencecentral.com/
- IFIC (International Food Information Council Foundation):
  - dedicated to the mission of effectively communicating science-based information on health, nutrition and food safety for the public good
  - http://www.foodinsight.org/
- FAO/WHO views on probiotics:
  - http://www.who.int/foodsafety/publications/fs_management/en/probiotics.pdf
  - http://www.who.int/foodsafety/fs_management/en/probiotic_guidelines.pdf?ua=1
- International Life Sciences Institute (ILSI) task-force on probiotics:
  - http://www.ilsi.org/Europe/Pages/TF_Probiotics.aspx
- ILSI task-force on prebiotics:
  - http://www.ilsi.org/Europe/Pages/TF_Prebiotics.aspx
- ISAPP (International Scientific Association for Probiotics and Prebiotics):
  - http://www.isapp.net/
- American Gut:
  - World's largest open-source science project to understand the microbial diversity of the Human Gut.
  - Learn which microbes live in your gut, skin and mouth
  - http://humanfoodproject.com/americangut/

Chapter 2

- KEGG pathway:
  - an on-line database for wiring diagrams of molecular interactions, reactions, and relations
  - http://www.genome.jp/kegg/pathway.html
- The Human Metabolome Database (HMDB):
  - a freely available electronic database containing detailed information about small molecule metabolites found in the human body
  - http://www.hmdb.ca/

- The International Association for Probiotics and Prebiotics (ISAPP):
  - an international non-profit collaboration of scientists dedicated to advance scientific excellence in probiotics and prebiotics
  - http://www.isapp.net/Probiotics-and-Prebiotics/The-Science

Chapter 4

Bacterial genome sequences

The following sites contain genome sequence information of *Bifidobacterium*; some searching may be required:

- http://www.ebi.ac.uk/genomes/bacteria.html
- http://www.ncbi.nlm.nih.gov/genomes/MICROBES/microbial_taxtree.html
- http://www.genomesonline.org/organisms?Organism.Domain=BACTERIAL

Societies promoting the science behind *Bifidobacterium*:

- International Scientific Association for Probiotics and Prebiotics: http://www.isapp.net/
- International Probiotics Association: http://www.internationalprobiotics.org/about
- Global Alliance for Probiotics: http://www.gap-probiotics.org/
- International Life Sciences Institute: http://www.ilsi.org/Europe/Pages/TF_Probiotics.aspx

Sources of general information regarding probiotics:

- American Nutrition Association: http://americannutritionassociation.org/newsletter/science-probiotics
- American Gastroenterological Association: http://www.gastro.org/patient-center/diet-medications/probiotics

Chapter 5

- Accurate information about the current status of a name, synonyms, and other useful information concerning prokaryotes:
  - http://www.bacterio.net/propionibacterium.html
- General information from MicrobeWiki, the student-edited microbiology resource:
  - https://microbewiki.kenyon.edu/index.php/ Propionibacterium
- Web page of the International Scientific Association for Probiotics and Prebiotics showing general information related to scientific advances in probiotics and prebiotics:
  - http://www.isapp.net/

Chapter 6

Functional foods

- http://www.isabellashealthybakery.com/functional.html
- http://www.sporegen.com
- http://www.sabinsa.com/newsroom/press-releases/ pr20121002.html)

Probiotics manufacturers

- http://www.ganedenBC30.com

EFSA Journal

- www.efsa.europa.eu/efsajournal
- http://www.efsa.europa.eu/it/efsajournal/pub/773.htm

Chapter 7

- http://onlinelibrary.wiley.com/doi/10.1111/j.1365–2036.2007.03442.x/pdf
- http://www.dairyscience.info/index.php/probiotics/232-yeast-probiotics.html
- http://www.europeanreview.org/wp/wp-content/uploads/1000.pdf

Chapter 8

Animals

- EFSA: Additives and Products or Substances used in Animal Feed (FEEDAP)
- http://www.efsa.europa.eu/en/panels/feedap.htm
- American Association of Feed Control Officials: Ingredient Definitions Committee
- http://www.aafco.org/Directory/CommitteePages/ IngredientDefinitions.aspx

Humans

- EFSA: Opinion on the Qualified Presumption of Safety on selected microorganisms
  - http://www.efsa.europa.eu/en/efsajournal/doc/587.pdf
- EFSA: Substantiation of health claims related to non-characterized bacteria and yeasts
  - http://www.efsa.europa.eu/en/efsajournal/doc/1470.pdf

- National Center for Complementery and Alternative Medicine: Oral Probiotics
  - http://nccam.nih.gov/health/probiotics/introduction. htm
- US Food and Drug Administration: Regulatory perspectives on pre- and probiotics
  - http://www.iom.edu/~/media/Files/Activity%20 Files/PublicHealth/MicrobialThreats/ Vaillaincourt17Mar05ProbioticsRegulation.pdf
- Agriculture and Agri-Food Canada: Function claims and probiotic claims for food
  - http://www4.agr.gc.ca/resources/prod/doc/prog/ai-ae/ pdf/probiotics_probiotiques_eng.pdf
- FAO/WHO: Probiotic definition
  - ftp://ftp.fao.org/docrep/fao/009/a0512e/a0512e00.pdf

Trade Associations

- International Probiotics Association
  - http://www.internationalprobiotics.org/about
- International Scientific Association for Probiotics and Prebiotics.
  - http://www.isapp.net/

Chapter 9

General information about *E. coli* infections and outbreaks can be found at the following websites:

- World Health Organization:
  - http://www.who.int/topics/escherichia_coli_infections/ en/
- Centers for Disease Control and Prevention (USA government):
  - http://www.cdc.gov/ecoli/
- European Centre for Disease Prevention and Control:
  - http://ecdc.europa.eu/en/healthtopics/escherichia_coli/ pages/index.aspx
- About *E. coli*:
  - http://www.about-ecoli.com/

Genome databases and tools for colibiome analysis can be found at the following websites:

- Pathosystems Ressource integration Center (PATRIC):
  - http://patricbrc.org/portal/portal/patric/ Taxon?cType=taxon&cId=561
- Virulence Factors of pathogenic Bacteria (VFDB-comparative pathogenomics):
  - http://www.mgc.ac.cn/cgi-bin/VFs/compvfs. cgi?Genus=Escherichia
- *E. coli* Database portal:
  - http://www.uni-giessen.de/ecoli/IECA/index.php
- -Colibri and Genolist World-Wide Web server (Institut Pasteur):
  - http://genolist.pasteur.fr/Colibri/
  - http://genodb.pasteur.fr/cgi-bin/WebObjects/GenoList. woa/1/wa/goToTaxoRank?level=Escherichia

- *E. coli* genome project (University of Wisconsin):
  – http://www.genome.wisc.edu/

Web resources related to MLST analysis according to the three main shemes are provided by the following sites:

- A multilocus sequence typing database system for pathogenic *E. coli* (EcMLST):
  – http://shigatox.net/new/tools/ecmlst.html
- Institut Pasteur's MLST website:
  – www.pasteur.fr/mlst
- Achtman scheme:
  – http://mlst.warwick.ac.uk/mlst/dbs/Ecoli

General information, newsletters about gut microbiota and probiotics and impact on health:

- The gut Microbiota for Health:
  – http://www.gutmicrobiotaforhealth.com/
  – http://gutmicrobiotaforhealth.com/c/probiotics
- Metahit, the human gut genes catalogue:
  – http://www.metahit.eu/index.php?id=360
- Metagenopolis:
  – http://www.mgps.eu/index.php?id=homepage
- ISAP (International Scientific Association for Probiotics and Prebiotics):
  – http://www.isapp.net
- Probiotics: Applications in Gastrointestinal Health and Disease:
  – http://www.usprobiotics.org

Information related to probiotic preparations containing *E. coli* strains can be found at the following websites:

- Mutaflor®:
  – http://www.mutaflor.de/cms/(German site)
  – http://mutaflor.ca/(Canadian site)
  – http://mutaflor.com.au/(Australian site)
- Symbioflor®2:
  – http://symbiopharm.de/en/products/symbioflor-2.html
- Colinfant newborn:
  – http://dyntec.cz.s3.amazonaws.com/232_eng_colinfantnb.pdf

Database related to clinical studies of human participants conducted around the world are available at the following website:

- http://clinicaltrials.gov/ct2/home

Chapter 11

GMO
- http://www.hse.gov.uk/biosafety/gmo/information.htm
- http://www.efsa.europa.eu/en/panels/gmo.htm

Company
- http://www.actogenix.com/
- http://www.vitherapharma.com/index.html

Clinical trial
- https://clinicaltrials.gov/
- International Scientific Association for Probiotics and Prebiotics:
  – http://www.isapp.net/

Chapter 12
- Metahit homepage:
  – http://www.metahit.eu/
- American Human Microbiome Project home page:
  – http://commonfund.nih.gov/hmp/index
- Vaginal microbiome consortium:
  – http://vmc.vcu.edu/about
- Mediateque INRA:
  – http://mediatheque.inra.fr/media/detail/246161/private
- Micalis homepage:
  – http://www.micalis.fr/micalis_eng/
- CDC page for IBD:
  – http://www.cdc.gov/ibd/
- Chrons and colitis foundation of America:
  – http://www.ccfa.org/
- What is a health benefit? Researchers issue probiotic guidance for EFSA applications. By Nathan Grey+, 11-Sep-2013:
  – http://www.nutraingredients.com/Research/What-is-a-health-benefit-Researchers-issue-probiotic-guidance-for-EFSA-applications
- Analytical Profile Index Biomerieux homepage:
  – http://www.biomerieux-usa.com/servlet/srt/bio/usa/dynPage?doc=USA_PRD_LST_G_PRD_USA_5

Chapter 14

Science Sites
- Centro de Referencia para Lactobacilos:
  – http://www.cerela.org.ar/
  – The Dairy Institute of Tucuman belongs to National Scientific and Technical Research Council -Argentina.
- Center for Gastrointestinal Biology and Disease:
  – http://www.med.unc.edu/cgibd
- Instituto de Productos Lácteos de Asturias:
  – http://www.ipla.csic.es/.
  – The Dairy Institute of Asturias belongs to Science and Food Technology Higher Council for Scientific Research.
- Laboratory of Microbiology Wageningen:
  – http://www.wageningenur.nl/en/Expertise-Services/Chair-groups/Agrotechnology-and-Food-Sciences/Laboratory-of-Microbiology.htm
- Microbiome Core Facility:
  – http://www.med.unc.edu/microbiome
  – metagenomic technologies to examine microbial communities
- Southeast Dairy Foods Research Center:
  – http://fbns.ncsu.edu/sdfrc/sdfrc.html.

– The SDFRC has been in operation since 1988. North Carolina State University is the lead institution, joined by Mississippi State University. It is one of six National Centers funded and supported by Dairy Management Inc. (DMI), through the Dairy Research Institute (DRI).

Company sites

- American Type Culture Collection (ATCC):
  – http://www.atcc.org/
- Chr. Hansen:
  – http://www.chr-hansen.com/research-development/customization.html
  – development of bacterial cultures for the dairy industry.
- BioGaia is a Swedish company:
  – http://www.biogaia.com/
- BIOPOLIS, S.L | Tailor-made Biotechnology:
  – http://www.biopolis-biotech.com/en/agri-food-biotechnology/
- BioSidus Probiótico intestinal (Bioflora™):
  – http://www.biosidus.com.ar/biopharmaceuticals.php
- Food for Health Ireland:
  – http://www.fhi.ie/home/
- Lactina-ltd:
  – http://www.lactina-ltd.com/eng/products-zakvaski.php
- Lactosan GmbH and Co. KG manufacturers of products based on living lactic acid bacteria:
  – http://www.lactosan.at/company.en.34.htm
- Lalleman:
  – http://www.lallemand.com/
- Nestle Institute Health Sciences Lausanne:
  – http://www.nestleinstitutehealthsciences.com/
- TI Food Nutrition:
  – http://www.tifn.nl/partnershipforinnovation

Chapter 15

- KEGG:
  – Kyoto Encyclopedia of Genes and Genomes
  – http://www.genome.jp/kegg/
- CAZy:
  – Carbohydrate-Active enZYmes Database
  – http://www.cazy.org/
- HMP:
  – Human Microbiome Project
  – http://www.hmpdacc.org/
- MetaHIT:
  – Metagenomics of the Human Intestinal Tract
  – http://www.metahit.eu/
- RegPrecise:
  – Collection of Manually Curated Inferences of Regulons in Prokaryotic Genomes
  – http://regprecise.lbl.gov/RegPrecise/
- PharmacoMicrobiomics:
  – The Drug-Microbiome Portal
  – http://pharmacomicrobiomics.com/
- mPUMA:

- microbial Profiling Using Metagenomic Assembly
  – http://mpuma.sourceforge.net
- BioCyc:
  – a collection of 2988 Pathway/Genome Databases
  – http://biocyc.org/
- MetaCyc:
  – a database of nonredundant, experimentally elucidated metabolic pathways
  – http://www.metacyc.org/
- Pathway Tools:
  – a comprehensive symbolic systems biology software system that supports several use cases in bioinformatics and systems biology
  – http://brg.ai.sri.com/ptools/
- American Gut:
  – World's largest open-source science project to understand the microbial diversity of the Human Gut. Learn which microbes live in your gut, skin and mouth
  – http://humanfoodproject.com/americangut/
- Rob Knight Lab, University of Colorado – Software:
  – https://knightlab.colorado.edu/wordpress/?page_id=28
- HMDB:
  – Human Metabolome Database
  – http://www.hmdb.ca/
- G6G:
  – Directory of Omics and Intelligent Software! This software directory lists data mining and additional software from the fields of biotechnology and artificial intelligence
  – http://g6g-softwaredirectory.com/index.php

Chapter 16

- http://qiime.org/:
  – Quantitative Insights into Microbial Ecology or QIIME is an open source software package used to compare and analyse microbial communities, usually using 16S rRNA gene or metagenomics NGS data generated from different platforms
- http://www.microbial-ecology.net/probebase/credits.asp:
  – the Department of Microbial Ecology at the University of Vienna runs probeBase, a database housing oligonucleotide probes usually targeting 16S rRNA and used for fluorescent *in situ* hybridization
- http://www.arb-silva.de/SILVA rRNA database:
  – an on-line resource riboromal RNA (both large and small unit rRNA) sequence data
- http://rdp.cme.msu.edu/RDP:
  – **an on-line resource riboromal RNA (both large and small unit rRNA) sequence data**
- http://greengenes.lbl.gov/cgi-bin/nph-index.cgi:
  – a web application providing access to the greengenes 16S rRNA gene sequence alignment for browsing, blasting, probing, and downloading
- http://www.hmpdacc.org/:
  – stores all the protocols, computational methods, and the results produced by the Human Microbiome Project.

Chapter 17

Table I.1 Resources available for metagenomic analysis

Type	Resource	Features	Website	Reference
Reference sequence DB	Greengenes	Quality-controlled microbial DNA data and tools	http://greengenes.lbl.gov/cgi-bin/nph-index.cgi	DeSantis et al. (2006)
	SILVA	Quality checked and regularly updated datasets	http://www.arb-silva.de/	Pruesse et al. (2007), Quast et al. (2013)
	RDP	Online data analysis, rRNA derived phylogenetic trees, aligned and annotated rRNA sequences	http://rdp.cme.msu.edu/ https://github.com/rdpstaff	Cole et al. (2009)
Annotation and analysis tools	MG-RAST (MetaGenomics Rapid Annotaton using Subsystem)	Annotation, taxonomic and functional assignment, pathway reconstruction single platform (depositing, locating, analysing, visualizing, data sharing)	http://metagenomics.nmpdr.org	Glass et al. (2010)
	IMG-M (Integrated Microbial Genomics/ Metagenomics)		http://img.jgi.doe.gov	Markowitz et al. (2012), Markowitz et al. (2014)
	MetaRep (METAgenomics REPorts)	High-performance comparative metagenomics	http://www.jcvi.org/metarep/; http://www.jcvi.org/hmp-metarep/	Goll et al. (2010), Goll et al. (2012)
	CAMERA (Community cyberinfrastructure from Advanced Micobial Ecology Research and Analysis)	Data analysis pipeline, single platform	http://camera.calit2.net	Sun et al. (2011b)
	MEGAN	Metagenome analysis software	http://www-ab.informatik.uni-tuebingen.de/software/megan	Huson et al. (2007), Huson and Weber (2013), Mitra et al. (2011)
	DIYA	Bacterial annotation pipeline	https://github.com/bioteam/DIYA	Stewart et al. (2009)
	RATT	Transfer annotation from reference genome onto assembly	http://ratt.sourceforge.net/ (now, part of PAGIT: http://www.sanger.ac.uk/resources/software/pagit/)	Otto et al. (2011)
	VMGAP	Virus-specific annotation pipeline		Lorenzi et al. (2011)
	CloVR	Virtual machine, automated sequence analysis from desktop, cloud computing.	http://clovr.org	Angiuoli et al. (2011), White et al. (2013)
	Galaxy	Web-based data analysis pipeline	https://usegalaxy.org/	Blankenberg et al. (2010)
	HUMAnN	Direct read alignment against protein DB, without prior assembly	http://huttenhower.sph.harvard.edu/humann	Abubucker et al. (2012)
	Ergatis	Genome annotation and comparative analysis	http://ergatis.sourceforge.net/index.html	Hemmerich et al. (2010), Orvis et al. (2010b)
	MetaPathways	Direct read alignment against protein DB, without prior assembly	http://hallam.microbiology.ubc.ca/MetaPathways/	Konwar et al. (2013)
Assembly tools	RaY	De novo metagenome assembly and profiling	http://denovoassembler.sourceforge.net/	Boisvert et al. (2012)
	Velvet	De novo assembly, short read alignment, Kmer DeBruijin graph traversal-based method	http://www.ebi.ac.uk/~zerbino/velvet/	Namiki et al. (2012), Powell and Seemann (2013), Zerbino (2010), Zerbino et al. (2009)
	SOAPdenovo	Short read assembly, Kmer DeBruijin graph traversal-based method	http://soap.genomics.org.cn/soapdenovo.html	Luo et al. (2012)
	Newbler	De novo assembler, designed for 454 platform	http://454.com/products/analysis-software/index.asp	Miller et al. (2010)
	ABySS	Kmer DeBruijin graph traversal-based method	http://www.bcgsc.ca/platform/bioinfo/software/abyss	Simpson et al. (2009)
	ALLPATHs	Kmer DeBruijin graph traversal-based method	http://www.broadinstitute.org/software/allpaths-lg/blog/	Butler et al. (2008), Maccallum et al. (2009)
	Genovo	Generative probabilistic model of read generation from environmental samples	http://cs.stanford.edu/group/genovo/	Laserson et al. (2011)

Table I.1 Continued

Type	Resource	Features	Website	Reference
	CLCbio	Kmer DeBruijin graph traversal-based method	http://clcbio.com	
	Meta-IDBA	Kmer DeBruijin graph traversal-based method	http://i.cs.hku.hk/~alse/hkubrg/projects/metaidba/	Peng et al. (2011)
	MetaVelvet	Kmer DeBruijin graph traversal-based method	http://metavelvet.dna.bio.keio.ac.jp/	Namiki et al. (2012)
	SMASHCommunity	Assembly and gene calling, data exploration, visualization	http://www.bork.embl.de/software/smash/	Arumugam et al. (2010)
Mapping/ Alignment tools	BWA	Mapping low-divergent sequences, based on Burrows-Wheeler aligners	http://bio-bwa.sourceforge.net/	Li and Durbin (2009)
	Bowtie	Memory-efficient short read aligner, based on Burrows-Wheeler index	http://bowtie-bio.sourceforge.net/index.shtml	Langmead et al. (2009)
	Novoalign	Single-ended and paired-end reads, Illumina GA platform, Needleman-Wunsch algorithm	http://www.novocraft.com/main/index.php	
	SOAP	Alignment of short oligonucleotides	http://soap.genomics.org.cn/soap1/	Li et al. (2008), Li et al. (2009)
	MrFAST	Mapping NGS reads, prediction of copy-number variation of duplicated segments and genes	http://mrfast.sourceforge.net/	Alkan et al. (2009)
	CloudBurst	Parallel read-mapping algorithm, SNP discovery, genotyping	http://sourceforge.net/projects/cloudburst-bio/	Nguyen et al. (2011), Schatz (2009)
	BFAST	Mapping of short reads to reference genomes	http://sourceforge.net/projects/bfast/	Homer et al. (2009)
	MUMer	Rapid genome alignment	http://mummer.sourceforge.net/	Kurtz et al. (2004)
	BLAST (Basic Local Alignment Search Tool)	Local similarity between sequences	http://blast.ncbi.nlm.nih.gov/Blast.cgi	
	MAQ (Mapping and Assembly with Quality)	Based on Burrows-Wheeler aligners	http://maq.sourceforge.net/	Kumps et al. (2010)
Reference DB for functional metagenomics	KEGG (Kyoto Encyclopaedia of Genes and Genomes)	Integrated database (16 main DB), broadly categorized systems, genomic, chemical, health information	http://www.genome.jp/kegg/	
	SEED	Comparative genomics environment, curation of genomic data, by annotator across many genes	http://www.theseed.org	
	CAZy (Carbohydrate Active enZyme database)	Genomic, structural, and biochemical information on CAZymes	http://www.cazy.org/	
	PFAM	Collection of protein families using multiple sequence alignments and hidden Markov models	http://pfam.xfam.org/	
	Phylofacts	Structural phylogenomic encyclopaedia for protein functional and structural classification	http://phylogenomics.berkeley.edu/phylofacts/	
	Uniprot	Protein sequence and functional information	http://www.uniprot.org/	
	Mascot	Search engine that uses mass spectrometry data to identify proteins from primary sequences	http://www.matrixscience.com/home.html	
16S based analysis tools	MOTHUR	16S-focused, quality-control, taxonomic profiling, data exploration, statistical analysis, visualization	http://www.mothur.org/wiki/Main_Page	Schloss et al. (2009)
	QIIME (Quantitative Insights Into Microbial Ecology)		http://qiime.org/	Caporaso et al. (2010), Kuczynski et al. (2011), Navas-Molina et al. (2013)
	VAMPS (Visualization and Analysis of Microbial Populations)		http://vamps.mbl.edu/	Huse et al. (2014)

Table I.1 Continued

Type	Resource	Features	Website	Reference
Data exploration, statistical analysis and visualization tools	bioBakery	Metagenome-focused, taxonomic and functional profiling, data exploration, statistical analysis, visualization	http://huttenhower.sph.havard.edu/biobakery	
	MetaPhlAn	Clade-specific marker genes, assign reads	http://huttenhower.sph.harvard.edu/metaphlan	Segata *et al.* (2012)
	PhymmBL	Classification method using interpolated Markov models	http://www.cbcb.umd.edu/software/phymm/	Brady and Salzberg (2009, 2011)
	STAMP (Statistical Analysis of Metagenomic Profiles)	Data exploration, quality control, taxonomic profiling, data exploration, statistical analysis, visualization	http://kiwi.cs.dal.ca/Software/STAMP	Parks and Beiko (2010)
	LEfSe		http://huttenhower.sph.harvard.edu/galaxy/	Segata *et al.* (2011)
	MaAsLin		http://huttenhower.sph.harvard.edu/galaxy/	
	MetaStats		http://metastats.cbcb.umd.edu/	Foster (2003)
	PICRUSt	Determination of virtual metagenome by using 16S data set	http://huttenhower.sph.harvard.edu/galaxy/	
	microPITA	Targeted selection of samples	http://huttenhower.sph.harvard.edu/galaxy/	Tickle *et al.* (2013)

Chapter 18

- Prebiotics:
  - http://www.prebiotin.com/science/
- Necrotizing enterocolitis:
  - http://www.nlm.nih.gov/medlineplus/ency/article/001148.htm
- Diabetes:
  - http://www.diabetes.co.uk/news/2013/Feb/prebiotic-supplement-linked-to-reduced-risk-of-type2-diabetes-96394547.html
  - http://lowcarbdiets.about.com/od/nutrition/a/oligosaccharide.htm
- Obesity:
  - http://www.optibacprobiotics.co.uk/blog/2013/01/could-prebiotics-help-to-tackle-obesity
- Cosmetic:
  - http://www.henkel.com/press/2005–12028-prebiotic-cosmetics-restore-natural-bacterial-balance-5868.htm
- Allergy:
  - http://www.medscape.com/viewarticle/804455
  - http://www.cochrane.org/podcasts/issue-1–3-january-march-2013/prebiotics-infants-prevention-allergy
- Vaginal health:
  - http://vhessentials.com/products-prebiotic-suppositories.php
- Aquaculture:
  - http://www.thefishsite.com/articles/1280/probiotics-in-aquaculture-do-they-work

Chapter 19

- Prebiotics:
  - http://www.isapp.net/

  - http://www.prebiotic.ca/prebiotic_fibre.html
  - http://www.fda.gov/default.htm
- Inulin:
  - http://www.prebiotic.ca/inulin.html
- Fructooligosaccharides (FOS):
  - http://www.vrg.org/blog/2012/10/22/oligofructose-and-fructooligosaccharides-fos-derived-mostly-from-chicory-root-or-cane-sugar/
  - http://bodyecology.com/articles/understanding_fos.php
- Lactulose:
  - http://suppversity.blogspot.com.br/2014/01/supplement-review-lactulose-isomerized.html
- Galactooligosaccharides (GOS):
  - http://www.fortitechpremixes.com/research/galacto-oligosaccharides-increase-calcium-absorption-in-young-girls/
  - http://www.healthsnap.ca/blog/what-does-that-mean-galactooligosaccharides.html
- Resistant starch (RS):
  - http://www.precisionnutrition.com/all-about-resistant-starch
  - http://digestivehealthinstitute.org/2013/05/10/resistant-starch-friend-or-foe/
- Soybean oligosaccharides:
  - http://www.whfoods.com/genpage.php?tname=foodspice&dbid=110
- Xylooligosaccharides (XOS):
  - http://www.healthyfellow.com/1199/a-new-prebiotic-ingredient/
- Isomaltooligosaccharides (IMO):
  - http://blog.questnutrition.com/what-is-isomalto-oligosaccharide/

Chapter 20

- http://www.cazy.org/Genomes.html is a database providing genomic and enzyme information on the carbohydrate active enzymes of all organisms
- http://www.phenol-explorer.eu/Phenol-Explorer is a comprehensive database on polyphenol content in foods

Chapter 21

- HealthGrain:
  – https://www.healthgrain.org/
- Fibebiotics:
  – http://www.fibebiotics.eu/
- Dietary Guidelines:
  – www.DietaryGuidelines.gov
- Selected products:
  – BioBran (Arabinoxylan): http://daiwa-pharm.com/english/product/biobran.html
  – Oat bran (beta-glucan): http://www.med.nyu.edu/content?ChunkIID=104429\

Chapter 22

Fibres

- Fibres definition:
  – http://www.codexalimentarius.net/download/report/710/al32_26e.pdf;
  – http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:285:0009:0012:en:pdf

Polyphenols

- Comprehensive database on polyphenol content in foods, including comprehensive data on polyphenol metabolism:
  – http://www.phenol-explorer.eu/

Human milk oligosaccharides

- David Mill's lab with the description of the human milk project:
  – http://fgp.ucdavis.edu/prog/fg/proj/mo
- Bod's lab dedicated to research on human milk oligosaccharides:
  – http://www.bodelab.com/bode-lab/Welcome.html
- Company sites (HMO suppliers):
  – http://www.inbiose.com/products_hmo.html
  – http://www.glycom.com/product_samples.asp
  – http://www.elicityl-oligotech.com/client/document/elicityl---oligotech---human---mammalian-milk-oligosaccharides-hmos_24.pdf
  – http://www.carbosynth.com/carbosynth/website.nsf/(w-productdisplay)/CA9C3737BB8CEA8480256A6B00359924
  – http://www.jennewein-biotech.de/en_food.php

Polyols

- European Association of Polyol producers website monitoring the regulatory development surrounding polyol and providing scientific based information: http://www.polyols-eu.com/index.php

Peptides as novel prebiotics

- Examples of patents mentioned peptides as potential prebiotics?:
  – https://www.google.com/patents/
  – EP1355541A1?cl=en&dq=glycomacropeptide+prebiotic&hl=en&sa=X&ei=kZbHU86BDYLOygPvroJQ&ved=0CDMQ6AEwAw
  – https://www.google.com/patents/EP1228707A1?cl=en&dq=glycomacropeptide+prebiotic&hl=en&sa=X&ei=kZbHU86BDYLOygPvroJQ&ved=0CCwQ6AEwAg

Chapter 23

- FSTA®:
  – an intelligence service constantly monitoring developments in the areas of food science, food technology and nutrition
  – http://www.foodsciencecentral.com/
- IFIC:
  – International Food Information Council Foundation
  – dedicated to the mission of effectively communicating science-based information on health, nutrition and food safety for the public good
  – http://www.foodinsight.org/
- FAO/WHO views on probiotics:
  – http://www.who.int/foodsafety/publications/fs_management/en/probiotics.pdf
  – http://www.who.int/foodsafety/fs_management/en/probiotic_guidelines.pdf?ua=1
- International Life Sciences Institute (ILSI) task-force on probiotics:
  – http://www.ilsi.org/Europe/Pages/TF_Probiotics.aspx
- ILSI task-force on prebiotics:
  – http://www.ilsi.org/Europe/Pages/TF_Prebiotics.aspx
- ISAPP:
  – International Scientific Association for Probiotics and Prebiotics
  – http://www.isapp.net/
- American Gut:
  – World's largest open-source science project to understand the microbial diversity of the Human Gut. Learn which microbes live in your gut, skin & mouth
  – http://humanfoodproject.com/americangut/

Chapter 24

- Gut microbiota expert information exchange
  – http://www.gutmicrobiotaforhealth.com/
- Newly published obesity-related research
  – http://www.obesityandenergetics.org/

- Blogs written by prominent obesity prevention and management researchers:
  - Dr. Sharma's Obesity Notes (http://www.drsharma.ca/)
  - http://www.weightymatters.ca/
  - http://www.davidkatzmd.com/
- Video: Friends with Benefits: The Human Microbiome
  - http://www.youtube.com/watch?v=GAF-AblJpfM

Chapter 25

The MetaHIT (Metagenomics of the Human Intestinal Tract) is an EU-financed project aiming at establishing associations between the genes of the human intestinal microbiota and our health and disease: http://www.metahit.eu

The International Human Microbiome Standards (IHMS) project is an EU-financed project which seeks to coordinate development of standard operating procedures (SOPs) and protocols that will optimize data comparisons in the human microbiome field: http://www.microbiome-standards.org

The European Network for Gastrointestinal Health Research (ENGIHR) is a European Science Foundation Research Networking Programme (RNP) which promotes interactions between researchers interested in gut health research in Europe: http://www.engihr.eu

This consumer-oriented webpage provides a wide range of information about gut and health, including the gut–brain -axis and pre- and probiotics: http://www.gutandbowel.com

Chapter 26

Probiotics and their paediatric use
- Research on fundamental and applied aspects of probiotics and prebiotics:
  - http://www.isapp.net/
- Children intestinal disease:
  - http://www.webmd.com/children/news/20101128/children-may-benefit-from-probiotics-prebiotics
- Bifidobacteria:
  - http://naturaldatabase.therapeuticresearch.com/nd/PrintVersion.aspx?id=891&AspxAutoDetectCookieSupport=1
- Guidelines for the Evaluation of Probiotics in Food:
  - ftp://ftp.fao.org/es/esn/food/wgreport2.pdf
- Regulation for probiotics:
  - http://ylfa.org/images/file/Workable%20solution%20for%20probiotics-2012.pdf

Prebiotics and their paediatric use
- Research on fundamental and applied aspects of probiotics and prebiotics:
  - http://www.isapp.net/
- Children intestinal disease:
  - http://www.webmd.com/children/news/20101128/children-may-benefit-from-probiotics-prebiotics

- Allergies:
  - http://www.sciencedaily.com/releases/2013/03/130328075716.htm

Chapter 27

Useful web resources related to the management of irritable bowel syndrome:

- http://onlinelibrary.wiley.com/advanced/search/results
- http://www.springer.com/food+science/book/978-0-387-79057-2
- http://www.ncbi.nlm.nih.gov/pubmed/?term=probiotic+and+prebiotic
- http://scholar.google.co.in/scholar?q=probiotic+and+prebiotic+in+IBS
- http://www.worldgastroenterology.org/assets/export/userfiles/Probiotics_FINAL_20111128.pdf
- http://www.theromefoundation.org/rome_III_gastro/
- http://www.aafp.org/afp/2009/0615/p1108.html
- www.sciencedirect.com

Chapter 28

Science sites
- The human oral microbiome database:
  - http://www.homd.org/

Company sites
- Biogaia AB:
  - http://www.biogaia.com
- Chr Hansen:
  - http://www.chr-hansen.com
- Yakult probiotic milk drink:
  - http://www.yakult.co.jp/english

Chapter 29

Molecular docking
- Learn more about Molecular docking:
  - http://www.biomolecular-modeling.com/Software_Docking.html
- Free docking software:
  - http://autodock.scripps.edu/
- Complete docking suite:
  - http://www.schrodinger.com/Glide
- Guidelines for evaluation and safety of probiotics in food
  - http://www.who.int/foodsafety/publications/fs_management/probiotics2/en/
- More statistical and global brief on cardiovascular diseases:
  - http://www.who.int/cardiovascular_diseases/en/

Chapter 30

Livestock feed supplements
- BENEO:
  – http://www.beneo.com
- BiOWiSH Technologies:
  – http://www.biowishtechnologies.com
- Kemin Industries:
  – http://www.kemin.com
- Novus International:
  – http://www.novusint.com

Microbial culture repositories
- American Type Culture Collection:
  – http://www.atcc.org
- Japan Collection of Microorganisms:
  – http://jcm.brc.riken.jp

Animal research resources
- Federation of Animal Science Societies:
  – http://www.fass.org
- Guide for the Care and Use of Agricultural Animals in Research and Teaching:
  – http://www.fass.org/page.asp?pageID=216
- European Federation of Animal Science:
  – http://www.eaap.org
- Association for Assessment and Accreditation of Laboratory Animal Care International:
  – http://www.aaalac.org
- Guide for the Care and Use of Laboratory Animals:
  – http://www.aaalac.org/resources/theguide.cfm

Chapter 32

The International Scientific Association for Probiotics and Prebiotics (ISAPP):

- http://www.isapp.net/