**Live Webcast**  
**Friday, July 15, 2016**

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Friday, July 15, 2016, 9 AM – 4 PM PDT

You will need a computer with internet access and speakers to participate in the live webcast.

**ON-Demand Webcast**  
Wednesday, July 20, 2016 – Saturday, August 20, 2016

Participants interested in on-demand, self-study learning including continuing education credit may register to download the recording of the program from Wednesday, July 20, 2016 through Saturday, August 20, 2016. The program plus in-class exercises will be available in four convenient segments.

**Home Study Recordings**

Valid for CE until June 29, 2019

You may listen to or view the recorded lecture at your convenience and earn home study credit. Expiration date: June 29, 2019

**WHO GETS SICK and WHO STAYS WELL: MICROBES, THE IMMUNE SYSTEM and BRAIN**

### On-Demand Webcast

- **PHYSICAL THERAPISTS:** IBP is accredited by the Commission on Dietetic Registration (CDR) as a Continuing Professional Education (CPE) Accredited Provider, #6050. The assignment of CDR-approved credit is available for this program. This program provides 6 CEHs.
- **SPEECH-LANGUAGE PATHOLOGISTS:** IBP is an approved provider by the CA Speech-Language Pathology and Audiology Board (SLPAB) and the American Speech-Language-Hearing Association (ASHA). This program provides 6 CEUs.
- **PHARMACISTS & PHARMACY TECHNICIANS:** IBP is accredited by the Accreditation Council for Pharmacy Education as a provider continuing education for pharmacists with a UAN of 092-0000-16-035-L14-P and 092-0000-16-035-L14-T. This program is approved for continuing education credit. This program provides 6 CE credits.
- **DIETITIANS:** IBP is approved by the Commission on Dietetic Registration (CDR) as an Approved Provider, #6050. The assignment of AOTA CEUs does not imply endorsement of specific course content, products, or clinical procedures by AOTA. This program provides 6 CEUs.
- **PHYSICIAN ASSISTANTS:** This program is approved by the National Commission on Certification of Physician Assistants (NCCPA) as a Category I CE program. This program provides 6 CEUs.
- **PHYSICAL THERAPISTS:** This program is approved by the Joint Commission as an approved provider of continuing education for credentialed professional personnel. This program provides 6 CEUs.
- **DIETITIANS:** IBP is approved by the American Heart Association as a provider of cardiovascular education. This program provides 6 CEUs.
- **PHYSICIANS:** This program is approved by the American Board of Medical Specialties (ABMS) as a Category 1 CME program. This program provides 6 CEUs.
- **COUNSELORS, SOCIAL WORKERS & MARRIAGE AND FAMILY THERAPISTS:** IBP is approved by the American Board of Behavior Analysis (ABAB), the National Board of Certified Counselors (NBCC), and by the National Board of Social Work (NASW) as a provider of continuing education. This program provides 6 CEUs.
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Understanding the Microbiome

- **Your Microbiome**: only 10% of the DNA in our body belongs to us; the other 90% consists of microbes that mostly reside in the immune system.

- **Friendly and Harmful “Alien” Bacteria**: are divided in different tissues of the GI tract by an ingenious system of barriers; two-way communication with the brain and GI tract occurs through the vagal nerve.

- **Microbial Communication**: colonies of microbes have their own languages, habitats, and essential functions; how antibiotics can depopulate beneficial and harmful bacteria.

- **Understanding Antibiotic Resistant Bacteria**: antibiotic resistant bacteria can develop a biofilm, a protective scaffolding; role in sinusitis, periodontal disease, GI inflammation and brain inflammation.

- **Immune System Development**: microbes determine and undermine the inflammatory system and can trigger autoimmune disorders.

- **Allergies and Autoimmune Disorders**: why a sterile childhood environment can predispose children to asthma and to allergies.

Neurocognitive Disorders

- **Birth**: 10% of the placenta contains health-promoting bacteria; C-section births and adverse effects of the unavailability of health-promoting bacteria.

- **Infancy, Learning and Memory**: microbes are needed to program immune cells and influence the wiring of the developing brain; a germ-free environment can impair learning and memory.

- **Autism**: abnormal GI findings include lower levels of lactobaccilis; the effectiveness of gluten- and casein-free diets.

- **Schizophrenia**: the high rate of celiac disease, abnormal gut barrier dysfunction, and altered synthesis of GI neurotransmitters including dopamine.

- **Alzheimer’s Disease**: recent research reveals that amyloid plaques, a hallmark of Alzheimer’s disease, trap bacteria that enter the brain; the emerging role of GI health in protecting the aging brain.

Stress, Anxiety and Mood

- **Neurotransmitters**: most serotonin, dopamine, and GABA are synthesized in the GI tract.

- **Stress and Inflammation**: acute stress, adrenaline, and the growth of pathogenic bacteria; chronic stress, cortisol resistance, and reduction of beneficial bacteria.

- **Generalized Anxiety**: GI inflammation is perceived as generalized anxiety due to GABA synthesis in GI tract and bacterial balance; PTSD, Gulf War Syndrome, and antibiotics.

- **Depression**: leaky gut-brain barrier in major depression; GI-synthesis of serotonin and lowered mood.

Restoring Microbial Health

- **Probiotic-Containing Foods and Drinks**: dairy-based (buttermilk, kefir, lassi, yogurt), vegetable-based (kimchee, pickles, sauerkraut), grain- or legume-based (miso, natto, tempeh, and other forms (kombucha, nondairy probiotic beverages).

- **Microbiota-Friendly Diet**: healthy GI bacteria thrive on a diet replete with microbiota-compatible carbohydrates and short-chain fatty acids; evidence-based guidelines.

- **Probiotics**: indications for antibiotic-associated GI disorders, role in immune function health, treating irritable bowel syndrome and inflammatory bowel disease.


- **Importance of Stress-resilience for Microbial Balance**: yoga, meditation, exercise, and social support.

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**FREQUENTLY ASKED QUESTIONS**

Q: Is there a way to enjoy this seminar without being at my computer for 6 hours? What if I am not free on July 15, 2016, the date of the broadcast?

Yes! First, register for the program. You will receive a link to view the program starting July 20, 2016 until August 20, 2016. The program will be divided into four segments of approximately 75 minutes for user-friendly viewing.

Q: What if I have technical issues getting and staying connected, difficulty seeing the slides, or hearing the speaker?

We have an expert videographer to capture the sound and slides. We will make copies of the outline available to the participants. Further, in the unlikely event that you have connection problems, IBP will provide registrants with a free set of 4 CDs or DVDs of the entire program.

Q: I’d like to view the program and receive credit but without watching the live program or downloading it and still receive continuing education credit. Can I do this?

Yes! The cost of the DVD or CD set will be the same as the cost of the live program. Register now, let the operator know you will want the CD or DVD set (specify which), and make sure your profession is included in our online brochure.

Q: Can I attend this program live?

Yes, but only if you live in a city where IBP is currently presenting this seminar.

Q: My profession is not included on the brochure. Can I receive continuing education credit?

Maybe. Please contact our customer service at (888) 202-2938.

Q: How long does it usually take to receive a certificate of completion?

Typically, within 3 or 4 business days.

This program describes the role of microbial health in determining who gets sick and who stays well, who develops chronic inflammation, immune and autoimmune disorders, periodontal disease, disorders of brain development and cognitive impairments.

Participants will also acquire evidence-based guidelines for the use of probiotics and other foods for restoring GI health.

Health professionals working in medical, dental, and behavioral health environments should be able to:

1. Discuss the importance of microbial health for your profession.
2. Identify how microbial health can affect brain development or the risk of Alzheimer’s disease.
3. Describe how a disorder of stress, anxiety or mood is linked to microbial imbalance.
4. List one or more evidence-based approaches to restoring microbial health.

**About the Instructor**

Lisa E. Goehler, Ph.D., is Lecturer in Nursing, Neuroimmunology and Behavior at the Center for the Study of Complementary Therapies at the University of Virginia. Dr. Goehler is an expert in the study of mind-body interactions as they affect the gut and brain. She has been the recipient of numerous grants, honors and awards. The author of more than 50 scientific publications, her research demonstrated how anxiety and mood disorders result from inflammation of the GI tract.

An outstanding speaker, Dr. Goehler presents practical discoveries to her students and health professionals with enthusiasm, clarity and warmth. In addition to Q & A sessions in class, Dr. Goehler will answer your questions during the second half of the lunch break and by email after the program concludes.