

# Optimizing Brain Health: Six Key Biomarkers

## A 6-Hour Home Study Program for Health Professionals

Biomarkers are measurable indicators of normal biologic processes, pathogenic processes, or responses to a therapeutic intervention. Typically determined from analyses of blood or saliva, they include C-reactive protein, homocysteine, hemoglobin A1c, vitamin D, the omega-3 index and, DNA analysis.

In this introductory program, learn about the key biomarkers associated with optimal brain health, resources for beginning self-directed testing, and nutritional and lifestyle-based strategies for optimizing levels of biomarkers.

Participants completing this non-technical program should be able to:

1. Identify the basic physiologic roles of six key biomarkers associated with optimal brain function.
2. Recognize common causes leading to abnormal levels of these biomarkers.
3. Describe the brain disorders associated with abnormal levels of these biomarkers.
4. Identify resources for self-directed testing.
5. Describe lifestyle-based strategies such as exercise, diet, and sleep for optimizing levels of these biomarkers.
6. Identify how these biomarkers affect key neurotransmitters and hormones including cortisol.

### CONTINUING EDUCATION



**NURSES:** Institute for Brain Potential (IBP) is accredited with distinction as a provider of continuing nursing education by the **American Nurses Credentialing Center's Commission on Accreditation**.

IBP is approved as a provider of continuing education by **California Board of Registered Nursing**, Provider #CEP13896, and **Florida Board of Nursing**. This program provides 6 contact hours.



**COUNSELORS, PSYCHOLOGISTS, SOCIAL WORKERS & MFTs:** Institute for Brain Potential is approved by the **American Psychological Association** to sponsor continuing education for psychologists. IBP maintains responsibility for this program and its content. This program provides 6 CE credits.



IBP, Provider #1160, is approved as a provider for continuing education by the **Association of Social Work Boards (ASWB)**, 400 South Ridge Parkway, Suite B, Culpeper, VA 22701. www.aswb.org. ASWB Approval Period: 11/11/14 – 11/11/17. Social workers should contact their regulatory board to determine course approval. Social workers will receive 6 continuing education clock hours for participating in this course.

IBP is approved as a provider of CE by the **FL Board of Psychology**, by the **FL Board of Clinical Social Work, MFT and Mental Health Counseling**, by the **OH CSWMFT Board**, Provider #RCST030801, by the **IL Dept. of Professional Regulation MFT CE Sponsor Program**, #168.000183, and by **TX State Board of Examiners of MFTs**, Provider #830. This program provides 6 CE hours.

**SUBSTANCE ABUSE PROFESSIONALS:** Institute for Brain Potential (IBP) is approved by the **NAADAC Approved Education Provider Program**, Provider #102949. IBP is approved by provider by **CCAPP-EI**, Provider Number 45-09-128-1217. This program provides 6 CEHs.



**PHARMACISTS AND PHARMACY TECHNICIANS:** IBP is accredited by the **Accreditation Council for Pharmacy Education** as a provider of continuing pharmacy education. This knowledge-based activity is designated for 6 contact hours (0.6 CEUs). UANs: 0492-0000-15-033-H04-P and 0492-0000-15-033-H04-T.



**Academy of General Dentistry**



**Program Approval for Continuing Education**

program provides 6 CE hours.



**OCCUPATIONAL THERAPISTS:** IBP is an American Occupational Therapy Association (AOTA) 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 0.6 AOTA CEUs or 6 contact hours. Content Focus: Domain of OT (Performance Patterns) and Occupational Therapy Process (Outcomes). This course is approved by the **FL Board of Occupational Therapy** for 6 hours of credit.

**PHYSICAL THERAPISTS:** This program is approved by IBP, which is an accredited provider by the **Physical Therapy Board of CA**. IBP is an **IL Dept. of Professional Regulation Approved CE Sponsor** for PTs and PTAs, #216.000210. IBP is recognized by the **NY State Board of Physical Therapy** as an approved sponsor of physical therapy CE. This program provides 6 CE hours.

**MASSAGE THERAPISTS:** IBP is an approved CE provider by **IL Dept. of Professional Regulation**, #245.000045. This course provides 6 CE hours. This course is approved for 6 hours of "General" CE Credit by the **FL Board of Massage Therapy**.

**SPEECH-LANGUAGE PATHOLOGISTS:** IBP is an approved provider by the **CA SLPAB**, # PDP247. This program provides 6 CE hours.

**RESPIRATORY CARE PROFESSIONALS:** RCPs in New York receive 6 hours of Category III credit through IBP's accreditation by the ANCC. IBP is approved by the **CA Board of Registered Nursing**, #CEP13896, and as such, its CE offerings are accepted by **Respiratory Care Board of CA**. This program provides 6 CE hours.

**EDUCATORS:** Participants completing this program will receive 7.5 contact hours of professional development credit through a cosponsorship agreement between Alliant International University and IBP. Alliant International University's graduate programs are accredited by the **Accrediting Commission of Senior Colleges and Universities of the Western Association of Schools and Colleges**. Please contact your school district if you need prior approval for this program.

Initial Release Date: 08/14/2015 Expiration Date: 08/14/2018 Content Level: Intermediate

### Hemoglobin A1c and Premature Brain Aging

- Mood Symptoms
- Advanced Glycation End Products (AGEs) and A1c
- Nutritional Interventions
- Lifestyle Interventions
- Testing Guidelines

### C-Reactive Protein (CRP) and Chronic Inflammation

- Brain Inflammation
- Nutritional Interventions
- Mindfulness and Stress
- Exercise
- Chronic Inflammation
- Sleep

### Homocysteine and Early Memory Loss

- Cardiovascular and Neurovascular Disease
- B-Vitamins and Neurotransmitter Synthesis
- MTHFR Polymorphism
- Nutritional Interventions

### Vitamin D: More Than a Sunshine Vitamin

- Populations at Risk
- Optimal Levels
- Vitamin D and Depression
- Vitamin D and Dementia
- Vitamin D Supplementation

### Omega-3 Fatty Acids:

#### The Pros and Cons of Supplementation

- Omega-3s and Brain Function
- Omega-3s and Brain Volume
- Guidelines for Supplementation
- Omega-3 vs. Omega-6

### Genomic (DNA) Analysis: How Your Environment and Lifestyle Affect Your Genes

- Genomic Analysis
- Genetic Variants
- Diet and Exercise
- Reward Pathways

## ABOUT THE INSTRUCTOR



Michael E. Lara, M.D., a clinical neuroscientist, was educated at Harvard, UCLA and Stanford. Dr. Lara is recognized for his evidence-based approaches to treating the whole person including lifestyle prescriptions that include nutrition and exercise. Dr. Lara maintains a private medical practice in Belmont, CA and is board-certified in Psychiatry and Neurology.

An outstanding, insightful and inspiring presenter with a talent for simplifying complex subjects, Dr. Lara speaks frequently at health-related conferences throughout North America. Health professionals commend his masterful presentations for communicating key discoveries and practical strategies with clarity, compassion and wisdom.