

THE GLOBAL RESOURCE FOR ANTI-AGING



ESTABLISHED 1992. A4M REPRESENTS 26,000
PHYSICIANS & SCIENTISTS FROM 120 COUNTRIES WORLDWIDE

Anti-Aging

Fall 2014

MEDICAL NEWS

Fall 2014 Bioidentical Hormone
Replacement Therapy
Symposium

Phoenix, AZ

1.888.997.0112 • www.A4M.com • THE FUTURE OF MEDICINE TODAY



WORLD CONGRESS ON ANTI-AGING MEDICINE DECEMBER 10-13, 2014 Venetian/Palazzo Resort • Las Vegas, NV

4 REASONS TO ATTEND

**INCREASE
YOUR
REVENUE**

"This brand of medicine has sent **more new patients to my office** than anything else in the previous 20 years."
Peggy Watson, MD

"I am now able to **help thousands of patients** get through their lives in a vibrant way with a focus on health maintenance."
Ajith Nair MD, MPM

**REDISCOVER
YOUR
PASSION**

**IMPROVE
PATIENT
CARE**

"For the first time in over thirty years of practicing medicine, **I feel I am a true physician and a healer.**"
Dalal Akoury, MD

"After attending my first conference, I realized **there is a better way.** I incorporated what I learned into an ailing practice."
Maria Del Vecchio, MD

**REVITALIZE
YOUR
PRACTICE**

GET AN EDGE THROUGH EDUCATION

Register TODAY! Call 1.888.997.0112 or visit www.A4M.com

WELCOME TO Phoenix



THE FUTURE OF MEDICINE TODAY

ESTABLISHED 1992, A4M REPRESENTS 26,000 PHYSICIANS & SCIENTISTS FROM 120 COUNTRIES WORLDWIDE

Distinguished Colleagues,

The **American Academy of Anti-Aging Medicine (A4M)** welcomes you to Phoenix, AZ for our **Fall 2014 Bioidentical Hormone Replacement Therapy Symposium**.

As you immerse yourself in the event's activities, take some time to go back to your "roots". Think back to when you first started practicing medicine. You were eager and excited to use your newfound knowledge. You longed to not only improve your patients' lives, but completely change them. You quickly embraced new concepts and methods, understanding they were all part of a greater purpose. You sought to make a difference.

Anti-Aging medicine allows physicians to make a powerful and permanent difference for their patients every day. Rather than simply treating the symptom, they explore and understand the etiology - root cause - of the problem. This enables physicians to discover underlying imbalances, deliver more accurate answers, and create customized solutions that give their patients longer, healthier, happier lives. By going back to our roots, we can transform the future of medicine.

It truly is an exciting time for Anti-Aging medicine, as it becomes the most important healthcare model for the new millennium. Traditional physicians are embracing this specialty, and renewing the passion they once had for the industry. They are reinvigorating their practices, increasing their competitive edge, attracting more patients and unlocking additional opportunities for revenue.

We are pleased you have joined us for this year's event, and trust you will find the content valuable and relevant to your practice. Through your involvement, we can continue to increase awareness of the prevention and reversal of age-related diseases. **Together, we can transform the future of medicine, today.**

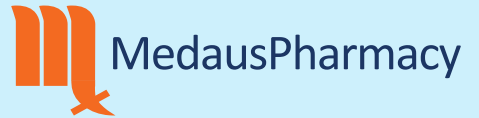
With Warm Regards,

The A4M Management Team

MEDICAL CONFERENCES INTERNATIONAL, INC. WISHES TO
ACKNOWLEDGE THE SUPPORT OF THE FOLLOWING SHOW SPONSORS:

SHOW Sponsors

PLATINUM ELITE SPONSORS



GOLD SPONSORS



SILVER SPONSORS





THE FUTURE OF MEDICINE TODAY

ESTABLISHED 1992, A4M REPRESENTS 26,000 PHYSICIANS & SCIENTISTS FROM 120 COUNTRIES WORLDWIDE

Table of Contents

- General Information 4
- Schedule-at-a-Glance 5
- Featured Speakers 6
- *Help Your Patients "Flip the Switch": Natural Solutions for Chronic Insomnia* 10
- *A Novel Phytochemical-Rich Multivitamin-Multimineral Supplement for Overall Health* . . 21
- A4M Advanced Education Highlights 28
- *Silver Lining in Intestinal Health* 36
- 22nd Annual World Congress Highlights 44
- Product Announcements 46
- Exhibitor Floorplan 50
- Exhibitor Index 51
- Exhibitor Listings 52
- Advertising Index 64

TABLE of contents



Aging Medicine (A4M.) All rights reserved. ISSN 1533-6700. Anti-Aging Medical News publishes materials in good faith and makes no claims or endorsements for products, services or procedures that appear in the publication. Opinions expressed in articles and advertisements are not necessarily those of Anti-Aging Medical News, its owners, affiliates, or its staff. The publisher is not liable for advertiser product claims or representations. Advertisers assume total responsibility for the contents of their advertisements. Under no circumstances is the content of Anti-Aging Medical News to be construed as medical advice. Always consult your personal physician prior to beginning a new therapy, or changing any current regimen.

PHOTO RELEASE: Anyone in attendance at any A4M event may be subject to any photography or videography conducted during the event which may be used in any form for future media purposes. Any concerns, please contact A4M.

PERMISSIONS TO REPRINT: On organization letterhead, supply the name of the article appearing in Anti-Aging Medical News, the issue of Anti-Aging Medical News, describe your usage (total readership [print run and/or other media], number of reprint instances), and indicate a contact name with telephone, facsimile, and e-mail at your organization. Send your request to: Reprint and Rights Department, Anti-Aging Medical News,

1801 N. Military Trail, Suite 200, Boca Raton, FL 33431 USA. Facsimile: (561)-997-0287. Anti-Aging Medical News cannot grant permissions for any materials reprinted from other sources (as is clearly indicated in these articles by inclusion of a source line).

VISIT US ON THE WEB: www.A4M.com
Executive, Editorial, Circulation, and Advertising Offices
Anti-Aging Medical News
1801 N. Military Trail, Suite 200 Boca Raton, FL 33431 USA
Telephone: (561) 997-0112
Facsimile: (561) 997-0287



General Information

BADGES:

The official registration badge should be prominently displayed at all times for admission into the meeting rooms and Exhibit Hall, during show hours and official events.

SHOW REGULATIONS:

1. An official picture ID is required to pick up name badge.
2. Name badge must be worn at all times during show hours and official events.
3. No one under the age of 18 will be admitted into the Exhibit Hall.
4. This event is open to healthcare professionals and their invited guests only.
5. Photography is permitted in the Exhibit Hall only by press, with the prior permission of show management, and prior permission from the firm(s) whose booth(s) are being photographed. Videography in the Exhibit Hall (motion video, film, or digital) is permitted only at discretion and with advance permission of show management and the prior permission of individual(s) and/or firm being photographed.
6. Audio-recording (tape or digital) of this event is expressly prohibited.
7. Unauthorized solicitation is prohibited. Solicitation of business on the event premises by anyone other than official exhibitors is strictly forbidden. Solicitation of business in, and in the immediate proximity of the event is extremely prohibited. In addition, non-A4M and/or commercial literature of any kind may not be distributed near or at the event registration area and all event-related general public areas.
8. No medical procedures are permitted to take place in Exhibit Hall booths without prior permission of show management.
9. Smoking is prohibited on the exhibit floor and in all meeting rooms.
10. Show management reserves the right to expel any individual and/or company without recourse or refund at its sole discretion.
11. PHOTO RELEASE: Anyone in attendance at any A4M event may be subject to any photography or videography conducted during the event which may be used in any form for future media purposes. Please contact A4M with any concerns.

SYMPOSIUM & FELLOWSHIP SCHEDULES

September 10-13, 2014 - Phoenix, AZ	
• Wednesday, September 10, 2014 •	
6:30 pm - 9:30 pm	A4M Board Certification Written Exam
6:00 pm - 9:00 pm	BHRT Symposium
• Thursday, September 11, 2014 •	
6:30 am - 5:00 pm	Exhibit Hours
7:30 am - 6:00 pm	BHRT Symposium
Fellowship Modules	
7:30 am - 6:00 pm	FAARM - Module I (B): Advanced Endocrinology
7:30 am - 6:00 pm	FAARM - Module II: Treatment of Hypertension, Diabetes, Coronary Artery Disease, Metabolic Syndrome
7:30 am - 6:00 pm	FAARM -Module VI: Herbology and Functional Regenerative Matrix
7:30 am - 6:00 pm	FAARM - Module XXV (B): Addiction
A4M Board Certification	
8:00 am - 5:00 pm	Oral Exams (by appointment only)
6:15 pm	Sponsored Evening Workshop - Nature-Throid (Non-CME)
• Friday, September 12, 2014 •	
6:30 am - 5:00 pm	Exhibit Hours
7:30 am - 6:00 pm	BHRT Symposium
Fellowship Modules	
7:30 am - 6:00 pm	FAARM - Module I (B): Advanced Endocrinology
7:30 am - 6:00 pm	FAARM - Module II: Treatment of Hypertension, Diabetes, Coronary Artery Disease, Metabolic Syndrome
7:30 am - 6:00 pm	FAARM -Module VI: Herbology and Functional Regenerative Matrix
7:30 am - 6:00 pm	FAARM - Module XXV (B): Addiction
A4M Board Certification	
8:00 am - 5:00 pm	Oral Exams (by appointment only)
6:15 pm	Sponsored Evening Workshop - T.A. Sciences (Non-CME)
• Saturday, September 13, 2014 •	
6:00 am - 1:30 pm	Exhibit Hours
7:00 am - 6:00 pm	BHRT Symposium
Fellowship Modules	
7:00 am - 5:30 pm	FAARM - Module I (B): Advanced Endocrinology
7:00 am - 5:30 pm	FAARM - Module II: Treatment of Hypertension, Diabetes, Coronary Artery Disease, Metabolic Syndrome
7:00 am - 5:30 pm	FAARM -Module VI: Herbology and Functional Regenerative Matrix
7:00 am - 5:30 pm	FAARM - Module XXV (B): Addiction
A4M Board Certification	
8:00 am - 5:00 pm	Oral Exams (by appointment only)



Eric Braverman, MD

Eric R. Braverman, MD is the Director of The Place for Achieving Total Health (PATH) Medical in New York City, a full-service family healthcare integrative medical practice. He also is President of Total Health Nutrients and the author of several books.



John Grasela, Compounding Pharmacist

John Grasela and his brother, Joe Grasela, are both compounding pharmacists who have owned and managed pharmacies in San Diego and Chula Vista since 1988. After finding some customers had special needs unmet by a traditional pharmacy, they created University Compounding Pharmacy where customers can get customized prescriptions. UCP specializes in re-creating discontinued medicines as well as new dosage forms for patients, physicians, and medical researchers. Their pharmacists use state-of-the-art technology with FDA-approved chemicals so that the finished medication meets the doctor's exact specifications.



Kris Hart, MN, FNP, RN-C

Kris Hart, MN, FNP, RNC is the Associate Medical Director for California HealthSpan Institute in Encinitas, CA. Ms. Hart has a Master's Degree in Nursing with Family Practice Nurse Practitioner certification from UCLA. She currently works in Family Practice, Emergency Medicine and Preventive/Regenerative Medicine. She has completed the Certification and Fellowship program in Preventive/Regenerative/Functional medicine as an allied health professional. Ms. Hart's background in family practice, critical care and emergency medicine and natural hormone optimization is extensive.



Thierry Hertoghe, MD

Thierry Hertoghe, MD is the President of the International Hormone Society. He practices lifespan/reversing aging medicine and hormone therapy. He represents the fourth consecutive generation of physicians who have worked in the field of hormone therapy, where he practices medicine with a team of experienced doctors in Brussels. He is an internationally known authority in medical therapies oriented to correct hormone deficiencies, reduce aging or even on some aspects reverse aging and possibly extend lifespan.

Jennifer Landa, MD, OB/GYN, FAARFM is the Chief Medical Officer for BodyLogicMD. Dr. Landa specializes in helping women and men balance their hormones, restore their energy, and replenish their sex lives. At the heart of her practice is the belief that maintaining one's health is hard work and she encourages her patients to make lifestyle changes that will result in increased health. Dr. Landa is also the Director for the Sexual Health and Treatment Certification program with the American Academy of Anti-Aging Medicine.



**Jennifer Landa, MD, OB/GYN,
FAARFM**

Ron Rothenberg, MD is a former Clinical Professor and Course Director of Preventative and Family Medicine, University of California, San Diego School of Medicine. He is the author of Forever Ageless and has recently been featured in the University of California M.D. television series.



Ron Rothenberg, MD

Pamela W. Smith, MD, MPH, MS spent her first twenty years of practice as an emergency room physician with the Detroit Medical Center. She is a diplomat of the Board of the American Academy of Anti-Aging Physicians and is an internationally known speaker and author on the subject of Metabolic, Anti-Aging and Functional Medicine. She is currently the Director of the Center for Healthy Living and Longevity and the founder and Director of The Fellowship in Metabolic, Anti-Aging and Functional Medicine. Dr. Smith is also the director of the Master's Program in Metabolic and Nutritional Medicine at the University of South Florida School of Medicine. Additionally, she has authored of several best-selling books.



Pamela W. Smith, MD, MPH, MS

Harvard University and University of Michigan graduate, Dr. Jonathan V. Wright is a fore-runner in research and application of natural treatments for healthy aging and illness. He was the first to develop and introduce the use of comprehensive patterns of bio-identical hormones and directed the development of tests to ensure their safe use. Wright founded the Tahoma Clinic (1973), Meridian Valley Laboratory (1976), and the Tahoma Clinic Foundation (1996). Tahoma Clinic was established to approach disease by natural means and emphasize correction of imbalances in the body that lead to disease.



Jonathan V. Wright, MD

BioRenew[®]

SKINCARE

Visit UCP Booth
for Special Offer

Professional Skin Care Products Designed
to Work with the Natural Biology of Your Skin.

Stabilized Vitamin C

Derma-Peptides • Niacinamide

Caffeine • Micro-Algae • Licorice Root

Hyaluronic Acid • Retinol

Natural Extracts



To order, Call Amy at 855-238-9500 or visit the UCP booth

Clinically Validated Concentrations | pH Balanced and Stabilized | With Dermahance TECHNOLOGY for Superior Results

www.biorenewskincare.com



THE FUTURE OF MEDICINE TODAY

ESTABLISHED 1992, A4M REPRESENTS 26,000 PHYSICIANS & SCIENTISTS FROM 120 COUNTRIES WORLDWIDE

IMMUNE SYMPOSIUM

Advances in Knowledge & Treatment

SEPTEMBER 26 – 27, 2014

Chicago Marriott Downtown
540 North Michigan Ave. Chicago, IL



LAST CHANCE TO REGISTER DON'T MISS OUT!

• What to expect?

This two day symposium is designed to provide physicians, nurse practitioners, and other medical professionals an advanced, in-depth understanding of immune mechanisms, how to better assess immune function, and develop effective intervention strategies for common immune and autoimmune conditions. Attention will be focused on therapeutic intervention, case-studies, and clinical tools to help clinicians confidently treat patients with complex immune dysfunction.

• Objectives:

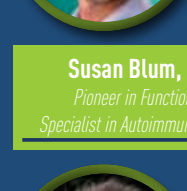
- Discuss the intersection of immune, gastrointestinal, and stress response systems
- Broadly understand the physiology and pathophysiology associated with inflammation, immune dysregulation and the connection to systemic disease
- How micronutrient deficiencies decrease immune function and deplete mitochondrial reserve
- Recognize and evaluate the most important and reliable laboratory tests associated with immune dysfunction and inflammation and be able to interpret those tests to appropriately counsel patients on treatment options

Faculty

Andrew Heyman, MD, MHSA
Metabolic Medicine Expert



Jon Kaiser, MD
Expert in Mitochondrial Medicine



Susan Blum, MD, MPH
*Pioneer in Functional Medicine,
Specialist in Autoimmune Conditions*



Kenneth Bock, MD
*Expert in Environmental Medicine
and Nutrition*



Shilpa P. Saxena, MD
*Lifestyle Medicine Leader,
Group Visit Pioneer*



Thomas G. Guillems, PhD
*Immunology Research and
Nutriceutical Expert*

LIMITED SEATING • 561-807-6054 • VISIT www.A4M.com FOR MORE INFO

Help Your Patients “Flip the Switch”: Natural Solutions for Chronic Insomnia

by Sonia Mavropoulos M.S., L.D.N.

For approximately 10-15% of the U.S. population, insomnia is a recurrent and life-altering health complaint. The overall cost of insomnia in the U.S., including treatment, lost productivity and insomnia-related accidents, exceeds \$100 billion per year.^[1, 2]

Those who suffer from insomnia often become trapped in a cycle of sleep dysfunction, starting with the inability to fall asleep, followed by ongoing fatigue throughout the day. Patients unable to appropriately make the transitions required to switch from sleep to wake phases during a 24-hour period are often plagued with persistent fatigue that diminishes their mental and physical reserves.

As a health risk, insomnia can contribute to weight gain, depleted immune response, increased risk of developing diabetes, anxiety and depression. Understanding the brain circuitry that is involved with maintaining a healthy sleep-wake cycle, as well as natural therapies that can be used to support optimal sleep cycle regulation can help get to the root cause of insomnia, boost the patient's well-being, and decrease the dependency on prescription and over-the-counter sleep medications.

Research over the past decade has begun to identify the brain circuitry and neurotransmitters that regulate daily cycles of sleep and wakefulness. This “sleep circuit” in the brain is comprised of a number of key components that reside within the brainstem and hypothalamus. This circuit includes both excitatory (glutamate, acetylcholine, norepinephrine) and inhibitory neurotransmitters (-aminobutyric acid, serotonin) designed to create a positive feedback loop. The activity in one of the competing sides shuts down inputs from the other side, creating an alternating circadian pattern of neurotransmitter activity. This “flip flop switch” regulates sleep-wake transitions by inhibiting arousal centers in order to induce sleep. Conversely, this switch also flips in the other direction during the day, stimulating arousal centers that trigger the wake cycle. Under normal, healthy conditions, this cycle continues on a 24-hour circadian pattern, creating a balance between the sleep and wake modes.

Homeostatic Regulation of Sleep

Sleep drive is regulated by a strong 24-hour circadian rhythm.^[3] The suprachiasmatic nucleus (SCN), located within the hypothalamus, serves as the body's master clock. Under normal circumstances, the SCN is reset on a daily basis by light inputs from the retina during the day and by melatonin secretion from the pineal gland during the dark cycle.^[4, 5] In the evening, the SCN sends output to sleep-regulatory systems, which include the subparaventricular zone (SPZ) and the dorsomedial nucleus of the hypothalamus (DMH). Integration of SPZ and DMH neurons drives circadian patterns of sleep and corticosteroid activity, increasing inhibitory neurotransmitter activity while decreasing cortisol production from the hypothalamic-pituitary-adrenal (HPA) axis.

A crucial sleep-signaling system includes DMH projections to the ventrolateral preoptic nucleus (VLPO), dominated by GABA-containing neurons. -Aminobutyric acid (GABA) functions as the primary inhibitory neurotransmitter in the brain, where it inhibits arousal pathways triggered by norepinephrine activity (in the locus coeruleus), dopamine activity (in the raphe nuclei) and histamine (in the tuberomammillary nuclei).^[6]

The VLPO sends outputs to all of the major arousal nuclei of the hypothalamus and brainstem, and is most active during sleep.

These nuclei form a circuit with mutually inhibitory elements, creating a self-reinforcing loop with arousal centers being activated and sleep-promoting centers being inhibited during the wake cycle, followed by sleep-promoting centers inhibiting arousal centers at night. This circuit has been described as the “flip flop switch,” characterizing the rapid transitions that occur between the stages in a healthy population. Additionally, specific brain regions actively control non-rapid eye movement (NREM) and rapid eye movement (REM) sleep secondary to physiologic and environmental cues.



Drugs that Affect Sleep

Pharmacological treatment is the most widely used therapy for insomnia—specifically medications that target neurotransmitter systems, such as GABA and histamine. The largest class of sleep-promoting drugs exerts activity by binding to and activating the GABA-A receptor. Commonly used GABA-agonists include barbiturates and benzodiazepines. The benzodiazepine diazepam (Valium) acts on GABA-A receptors that contain a α -subunit and subunits of the α -1, α -2, α -3 or α -5 class.^[7] At lower doses, benzodiazepines can act on targets of the VLPO, resulting in an increase in endogenous GABA production that acts to decrease activity in the arousal systems. At higher doses, they suppress firing throughout the central nervous system (CNS), which accounts for the dangerous risks associated with high-dose benzodiazepine use. In general, benzodiazepines have been associated with tolerance, abuse potential, daytime drowsiness and cognitive impairment.^[8]

Some of the newer, non-benzodiazepines prescribed for sleep, such as zolpidem (Ambien®) and eszopiclone (Lunesta®), also bind to α -1 gamma GABA receptor sites, but differ from the classic benzodiazepine structure and are more selective for the α -1 receptors. This is important for promoting sedation; however, these non-benzodiazepines do not exert an anxiolytic effect.^[7] Ambien® has been associated with serious effects, including sleep-activity. An example according to the FDA is that after taking Ambien® the patient may: “get up out of bed while not being fully awake and do an activity that you do not know that you are doing. The next morning you may not remember that you did anything during the night.” Reported activities following Ambien use include not remembering driving a car (“sleep-driving”) and sleepwalking.^[9]

Some sleep-promoting drugs interfere with the histamine-driven arousal systems. For example, diphenhydramine (Benadryl®) is an antihistamine that crosses the blood-brain barrier and causes drowsiness by blocking the awakening influence of the central histaminergic system. Histamine is an excitatory neurotransmitter that triggers activity in the catecholamine systems. Suppressing histamine activity at night does induce drowsiness; however, due to the additional suppression in the catecholamine (dopaminergic systems), short-term memory and concentration can be severely compromised following use.

Traditionally, many of the medications prescribed for sleep were intended for short-term use with a duration averaging four weeks. Long-term sleep-medication use increases the risk of habituation and problematic withdrawal systems. The extended treatment duration is not surprising; while these medications do provide short-term relief, they fail to address the underlying root cause of the patient’s inefficient sleep-wake cycle.

Addressing the Root Cause

Synthesis of many of the neurotransmitters that regulate sleep depends on adequate availability of amino acid precursors along with vitamin and mineral cofactors for conversion. However, rebuilding adequate endogenous reserves of crucial sleep-promoting neurotransmitters is typically overlooked in conventional sleep-support therapy. Many of the drugs prescribed for insomnia act on receptors that enhance the



excretion rate of neurotransmitters out of the neuron. A major downfall with this approach is the failure to address the deficiency itself. An additional issue is that the medications may accelerate the excretion rate of an already depleted neurotransmitter pool, leaving the patient with a limited supply of neurotransmitters and decreased ability to establish normal circadian rhythm.

Many factors can cause imbalance, requiring a demand for greater inhibitory neurotransmitter synthesis. This includes poor diet, nutrient imbalances, high stress levels and genetic predisposition.

Patients that present with poor sleep often suffer with concomitant symptoms of anxiety or depression, all of which indicate the need for greater serotonin and GABA synthesis. Research has identified reduced GABA levels in patients with primary insomnia, specifically within the occipital cortex and anterior cingulate cortex of the brain.^[10] Today, many options are available to safely and effectively boost levels of the neurotransmitters that regulate sleep.

Natural Support for Sleep Cycle Regulation

The biosynthesis of the sleep-regulating hormone melatonin is initiated by the uptake of the essential amino acid tryptophan into the pineal gland. In the average diet, tryptophan is the least abundant essential amino acid. Tryptophan is converted into the amino acid intermediate 5-hydroxytryptophan (5-HTP), which is then directly converted into 5-hydroxytryptamine (serotonin). Serotonin concentrations are highest in the pineal than in any other region in the brain. Serotonin concentration in the brain decreases by more than 80% after the onset of darkness. This is when serotonin is converted into melatonin in the pineal via the enzymes serotonin-N-acetyltransferase (SNAT) and hydroxyindole-O-methyltransferase (HIOMT). Critical in the regulation of melatonin synthesis, calcium ions (Ca²⁺) increase nocturnal SNAT activity.^[11]

Clinical studies have demonstrated the ability of 5-HTP in promoting and maintaining sleep. 5-HTP increases REM sleep by about 25%, while increasing deep-sleep stages three and four, without lengthening total sleep time. Non-REM stages one and two, the least important stages, are reduced to compensate for this increase, resulting in increased sleep efficiency.^[12,13] 5-HTP, as a dietary supplement, has also been shown to be far more effective in promoting sleep when compared to L-tryptophan.^[14,15]

GABA is also available as a dietary supplement; produced either by a fermentation process that utilizes the probiotic *Lactobacillus hilgardii*, or through organic synthesis.^[16] In a study utilizing 100 mg of natural-sourced GABA supplemented before bedtime, sleep latency was shown to be reduced by 20%, while increasing time in a deep sleep by 20%.^[16] Natural-sourced GABA has also been shown by electroencephalogram readings to promote relaxation by increasing the ratio of alpha to beta waves, an important factor for patients that struggle with sleep latency issues often exacerbated secondary to anxiety and restlessness.^[17]

The most studied botanical for inducing sleep, valerian root extract's active component, valerenic acid, also supports GABA neurotransmission. Valerenic acid has been found to inhibit the release and reuptake of GABA in the CNS.^[18,19] A randomized, double-blind, placebo-controlled trial examined the effects of valerian given to patients aged 18 to 73 years with a mean duration of insomnia for three and a half months. The patients were given either 600 mg/day of valerian or 10 mg/day oxazepam for six weeks. Throughout the treatment phase, valerian extract showed a comparable efficacy to the group receiving the benzodiazepine oxazepam.^[20]

Changes in sleep architecture, particularly with aging patients and patients with high stress levels, is often associated with an increase in cortisol levels in the evening. Therefore, therapies that modulate the sleep cycle often do so by modulating the actions of cortisol. Magnesium has been shown to be beneficial in the regulation of sleep by modulating both neurotransmission and the HPA axis.

The primary excitatory neurotransmitter glutamate and the major inhibitory neurotransmitter GABA have an inverse relationship with one another. Magnesium (Mg²⁺) increases GABA activity by blocking glutamate from binding to its receptor, N-methyl-D-aspartate (NMDA). In addition to its NMDA antagonistic and GABA agonistic properties, magnesium has been shown to decrease cortisol, but not adrenocorticotropin hormone (ACTH), following oral magnesium administration.^[21]

In a double-blind, randomized clinical trial conducted in 46 elderly subjects with insomnia, the effects of 500 mg of magnesium, or placebo, were examined following an eight-week period. Compared to the placebo group, magnesium supplementation resulted in a statistically significant increase in sleep time, sleep efficiency and melatonin levels, while decreasing both sleep-onset latency and serum-cortisol concentrations.^[22]

Another commonly used supplement that helps regulate sleep through its HPA axis-balancing effects is phosphatidylserine. Phosphatidylserine (PS) is a phospholipid found in high concentrations in cell membranes and can also be naturally derived from soy lecithin. In studies administering PS (50-800 mg) to subjects under high levels of stress (physical and mental), it has been found that PS reduced stress-induced secretion of cortisol.^[23,24] Phosphatidylserine is a useful adjunct for patients with elevated evening cortisol levels that suffer from frequent waking along with an inability to fall back asleep in the middle of night.

Continuous lack of sleep is a common and insidious problem. Patients with chronic insomnia struggle with reduced mental capacity and impaired performance, which can gradually develop into more serious health conditions like anxiety and depression. While sleep medications offer a quick fix, they can be habit-forming and do not address the root cause of insomnia. Targeted nutrient therapy



LESS THAN

1/2

of Americans are sleeping well every night.



Cerenity PM

Cerenity PM is a powerful sleep cycle formula designed to boost sleep-regulating neurotransmitters and decrease HPA axis activity in order to reset circadian rhythm.



Visit SleepReset.com

**For your free guide to the latest approach in sleep therapy:
"The Sleep Reset Program: When Nothing Else Works"**



For 25 years, Ortho Molecular Products has partnered with health care providers to provide the very best supplements with an unwavering commitment to efficacy.

**Evidence-Based Formulations. Uncompromising Raw Materials.
Patients Get Better Faster.**

To get started call 800.332.2351 or visit
OrthoMolecularProducts.com



These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.

to increase inhibitory neurotransmitter synthesis is a promising approach for chronic insomnia to help patients regain the ability to “flip the switch” each night. This paradigm is based on supporting the synthesis of GABA and melatonin to decrease the arousal systems, initiating the body’s transition into the sleep phase. For challenging patients that require a new approach, targeted nutrient therapy combined with improved sleep hygiene and stress reduction management may be exactly what they need to regain control of the sleep-wake cycle.

About The Author

Sonia Mavropoulos is a Licensed Dietician Nutritionist and holds a Master’s degree in Nutrition from Bastyr University. Sonia has over 10 years of experience developing clinical solutions for patients with affective disorders. Sonia currently manages the stress management program- a comprehensive line of stress formulations for Ortho Molecular Products, Inc..



References

1. Stoller MK. Economic effects of insomnia. *Clin Ther* 1994; 16:873-897.
2. Bunney WE Jr, Azarnoff DL, Brown BW Jr, et al. Report of the Institute of Medicine Committee on the efficacy and safety of haldion. *Arch Gen Psychiatry* 1999;56:349-352.
3. Dijk DL, Czeisler CA. Contribution of circadian pacemaker and the sleep homeostat to sleep propensity, sleep structure, electroencephalographic slow waves, and the sleep spindle activity in humans. *J Neurosci* 1995;15:3526-2538.
4. Johnson RF, Moore RY, Morin LP. Loss of entrainment and anatomical plasticity after lesions of the hamster retinohypothalamic tract. *Brain Res* 1988;460:297-313.
5. Cassone VM, Shesworth MJ, Armstrong SM. Entrainment of rat circadian rhythms by daily injection of melatonin depends upon the hypothalamic suprachiasmatic nuclei. *Physiol Behav* 1986;36:1111-1121.
6. Sullivan S. *Insomnia Pharmacology*. *Med Clin North Am* 2010 May;94(3):563-80.
7. Rudolf U, Mohler H. Analysis of GABAA receptor function and dissection of the pharmacology of benzodiazepines and general anesthetics through mouse genetics. *Annu Rev Pharmacol Toxicol* 2004; 44:475-498.
8. O'brien CP. Benzodiazepine use, abuse, and dependence. *J Clin Psychiatry* 2005;66 (Supple 2):28-33.
9. Retrieved from: <http://www.fda.gov/downloads/drugs/drugsafety/ucm085906.pdf>
10. Plante DT, Jensen JE, Schoerning L, et al. Reduced γ -aminobutyric acid in occipital and anterior cingulate cortices in primary insomnia: a link to major depressive disorder? *Neuropsychopharmacol* 2012; 37(6): 1548-1557.
11. Jolanta B, Zawilska. The role of calcium in the regulation of melatonin biosynthesis in the retina. *Acta Neurobiol Exp* 1992;52:265-274.
12. Zarcone Jr VP, Hoodes E. Effects of 5-hydroxytryptophan on fragmentation of REM sleep in alcoholics. *Am J Psychiatry* 1975;132:74-76.
13. Soulairec A, Lambinet H. Effect of 5-hydroxytryptophan, a serotonin precursor, on sleep disorders. *Ann Med Psychol* 1977;1:792-798.
14. Wyatt RJ, Zarcone V, Engelman K. Effects of 5-hydroxytryptophan on the sleep of normal human subjects. *Electroencephalogr Clin Neurophysiol* 1972;30:505-509.
15. Wyatt RJ. The serotonin-catecholamine-dream bicycle: a clinical study. *Biol Psychiatry* 1972;5:33-64.
16. Unpublished data provided by Pharma Foods International LTD., Kyoto, Japan.
17. Abdou AL, et al. Relaxation and immunity enhancement effects of γ -aminobutyric acid (GABA) administration in humans. *Biofactors* 2006;26:201-208.
18. Ebadi, M. *Pharmacodynamic Basis of Herbal Medicine*. Valerian for sleep disorders. CRC Press pp. 670-681.
19. Santos MS, Ferreira F, et al. Synaptosomal GABA release as influenced by valerian root extract-involvement of the GABA carrier. *Arch Int Pharmacodyn Ther* 1994;327(2):220-31.
20. Ziegler G, Ploch M, Miettinen-Baumann A, Collet W. Efficacy and tolerability of valerian extract LI 156 compared with oxazepam in the treatment of non-organic insomnia-a randomized, double-blind, comparative clinical study. *Eur J Med Res* 2002; 25:7(11):490-6.
21. Held K, Antonijevic IA, Kunzel H. Oral Mg2+ supplementation reverses age-related neuroendocrine and sleep EEG changes in humans. *Pharmacopsych* 2002;35:135-143.
22. Abbasi B, Kimiagar M, Sadeghniaat K. The effect of magnesium supplementation on primary insomnia in elderly: A double-blind placebo-controlled clinical trial. *J Res Med Sci* 2012; 17(12): 1161-1169.
23. Monteleone P, Maj M, et al. Blunting by chronic phosphatidylserine administration of the stress-induced activation of the hypothalamo-pituitary-adrenal axis in healthy men. *Eur J Clin Pharmacol* 1992; 42(4):385-388.
24. Monteleone P, Beinart L, et al. Effects of phosphatidylserine on the neuroendocrine response to physical stress in humans. *Neuroendocrinology* 1990; 52(3):243-248



***We Offer More Tests Than Any Other
Metabolic Diagnostic Laboratory***

More Than 100 Tests Available

Offering:

- **Hormone Testing - Saliva, Urine And Blood**
- **Functional And Biomarker Testing**

48 - 72 Hr Turn Around Time

**VISIT US AT TABLE #5 FOR MORE INFORMATION
WWW.AMLDX.COM • 1-877-983-7863**



THE FUTURE OF MEDICINE TODAY

ESTABLISHED 1992, A4M REPRESENTS 26,000 PHYSICIANS & SCIENTISTS FROM 120 COUNTRIES WORLDWIDE

Hormone Optimization: The Complete A-Z Symposium November 6-8, 2014 • Vancouver, BC Treat the Cause, Not the Symptoms

Course Description:

This 3-day program is designed to provide practitioners insight into the assessment and management of symptoms commonly associated with hormone imbalances in men and women. Discussions will include treatment options for various issues associated with hormone imbalance, including physiology, hormone restoration, pharmacologic approaches, nutritional influences and lifestyle factors affecting outcomes.

Topics to include:

- Hormonal Symphony for Male & Female Patients
- Advances in Laboratory Testing
- Nutrition, Hormones & Lifestyle
- Functional Treatment of Osteoporosis
- Obtaining Physiologic Restored Balance
- Nutrition, Hormones & Brain Health
- Overcoming Hypothyroidism
- Case Studies & Patient Evaluations



The Four Seasons Vancouver
791 West Georgia St,
Vancouver, BC V6C 2T4
Room rate: CAD 180 / night exp. 10/17/14
(includes room internet)
Group Code: C11114BHRT
Toll Free: 866.223.9333

Speakers:



Tana Amen,
BSN, RN



George Gillson,
MD, PhD



Jack Monaco,
MD, FAARFM



Pamela W. Smith,
MD, MPH, MS



Brenda Yuzdepski,
B.Sc.Pharm, FAARFM, ABAAHP



Dennis Wong,
B.Sc.Pharm, FAARFM, ABAAHP

To register for this event please call 888-997-0112 or visit www.A4M.com

PCCA: Delivering the science behind the compounds you prescribe

**Connecting you to a network of
4,000+ compounding pharmacies
with exclusive access to:**

- The most studied, proven bases for
 - Hormones
 - Pain
 - Scar & Wound
- More consulting pharmacists
- Unsurpassed quality APIs

 **PCCA**[™]
800.331.2498 | pccarx.com





METABOLIC MEDICAL INSTITUTE

2014 Live Integrative & Metabolic Medicine Courses



Educational Partners



THE GEORGE
WASHINGTON
UNIVERSITY
WASHINGTON, DC

Venue:
The Fontainebleau Hotel
4441 Collins Avenue
Miami Beach, FL 33140



October 31- November 2, 2014

Course III: Foundations in Advanced Integrative Medicine: Nutritional Metabolism, Environmental Exposures, Cardiometabolic Diseases and Hormone Management

Course IV: Foundations in Advanced Integrative Medicine: Gastroenterology, Immunology, and Neurology.

**Academic Credits
available towards
graduate certificate**

For more event information, visit www.mmimedicine.com or call (561) 910-4960 • (866) 846-1107

2014 Live Integrative & Metabolic Medicine Course Descriptions October 31- November 2, 2014

Speaking Faculty



Andrew Heyman,
MD, MHSA



Mark Houston,
MD, MS, FACP



Stephen Sinatra,
MD, FACC, CNS

Course III: Foundations in Advanced Integrative Medicine: Nutritional Metabolism, Environmental Exposures, Cardiometabolic Diseases and Hormone Management

Topics to include:

- Nutrients, Environmental Exposures and their impact on Obesity, Diabetes, and Cardiovascular Diseases
- Common 'exogenous inputs' - food, supplements, drugs, and pollutants
- Assessment and management of Cardiometabolic risk, hormonal imbalances, and medical toxicology and detoxification strategies
- Case based learning, group discussion and patient examples to solidify knowledge and ensure clinical success in any medical practice

Course IV: Foundations in Advanced Integrative Medicine: Gastroenterology, Immunology, and Neurology

Topics to include:

- Assessment and management of gastrointestinal disorders such as reflux, ulcers, gut permeability states, and irritable bowel syndrome, and inflammatory bowel disease
- Strategies to manage the cancer patient, chronic infections, autoimmune diseases and allergies
- Common neurologic and psychiatric conditions will be addressed such as neurodegenerative diseases, headaches, neuropathy, and mood disorders
- This course will focus on practical application through case analysis, group discussion and patient examples

Dr. Tara Dall

HDL, Inc. Chief
Medical Officer

I don't
just prevent
heart disease.
I reverse it.



Traditional cholesterol testing is no longer enough.

That's why physicians around the country are choosing advanced cardiovascular testing and health consulting from Health Diagnostic Laboratory, Inc. for their patients. Uncovering hidden risk factors in 76% of Americans with optimal cholesterol levels, HDL, Inc. detects potential disease risk early, then pairs patients with one of our Clinical Health Consultants at no extra charge to help stop and reverse the path to heart disease – improving and saving lives in the process.

Go beyond disease diagnosis.

HealthDiagnosticLaboratoryInc.
beyond disease diagnosis

A novel phytochemical-rich multivitamin-multimineral supplement for overall health

Robert H. Lerman, MD, PhD

Botanicals have been used in many cultures around the world throughout history to improve health or treat illnesses. There has been strong evidence demonstrating that high consumption of fruits, vegetables, herbs, and spices is associated with reduced risk of many chronic diseases,^[1-3] probably related to the wide variety of bioactive phytochemicals they contain.^[4-6] For example, the family of flavonoids have been shown to scavenge free radicals, eliminate radical precursors, elevate endogenous antioxidants, inhibit oxidative DNA adduct formation, and inhibit LDL oxidation.^[7,8] Additionally, many phytonutrients confer their beneficial effects through modulation of signal transduction pathways and signal transduction molecules, leading to decreased inflammation and increased stress resistance and phase-2 detoxification capability.^[9,10] However, according to the National Health and Nutrition Examination Surveys (NHANES) 2003-2006, fewer than 10% of U.S. adults consume sufficient amounts of fruits and vegetables, suggesting that the majority of Americans are not receiving the potential health benefits provided by these phytochemicals.^[11]

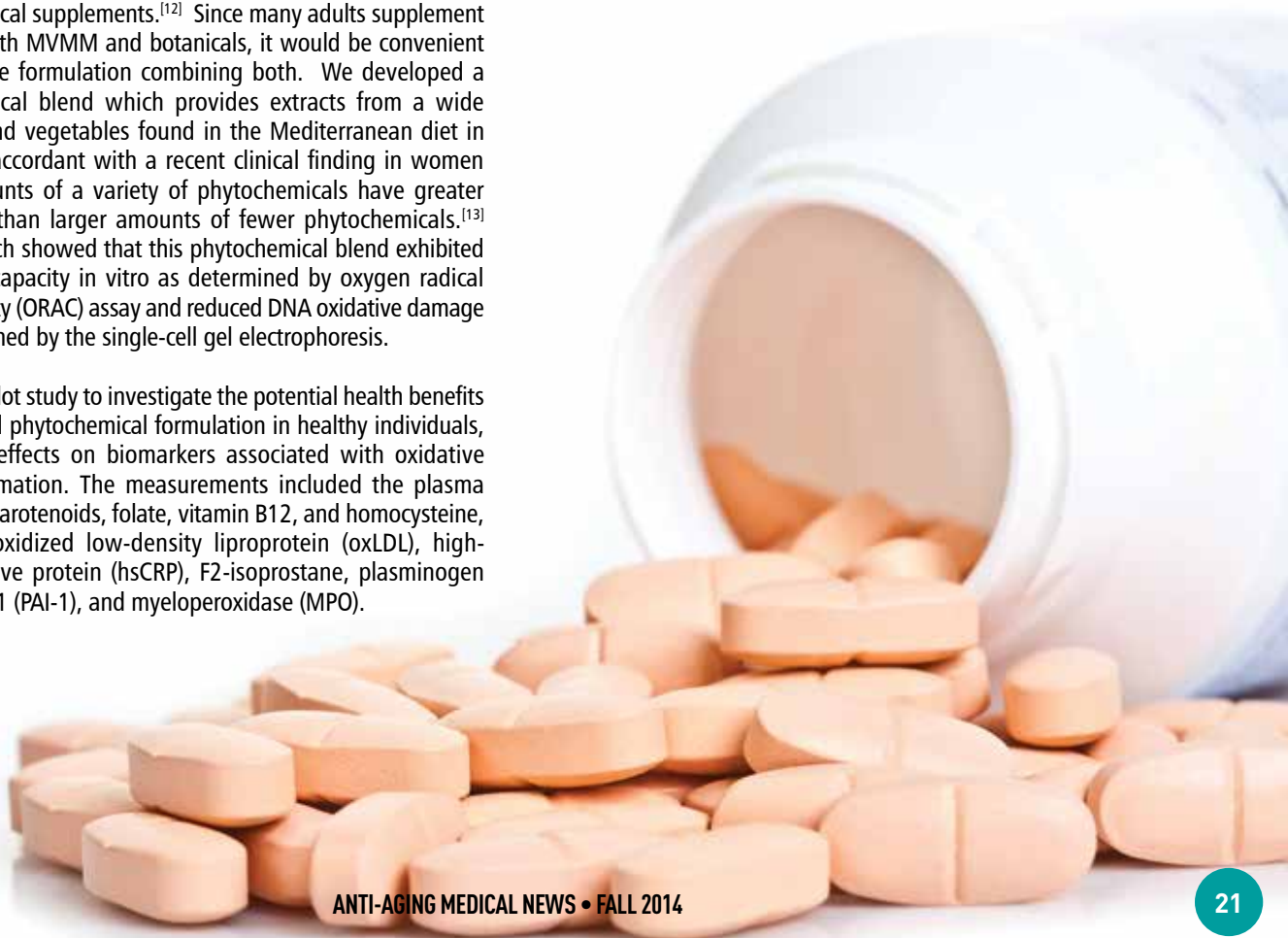
Half of the U.S. population reported use of a dietary supplement; the most commonly used are multivitamin-multimineral supplements (MVMM; defined as containing ≥ 3 vitamins and ≥ 1 mineral) followed by botanical supplements.^[12] Since many adults supplement their diets with both MVMM and botanicals, it would be convenient to provide a single formulation combining both. We developed a novel phytochemical blend which provides extracts from a wide variety of fruits and vegetables found in the Mediterranean diet in small quantities, accordant with a recent clinical finding in women that smaller amounts of a variety of phytochemicals have greater beneficial effects than larger amounts of fewer phytochemicals.^[13] Preliminary research showed that this phytochemical blend exhibited high antioxidant capacity in vitro as determined by oxygen radical absorbance capacity (ORAC) assay and reduced DNA oxidative damage in vitro as determined by the single-cell gel electrophoresis.

We conducted a pilot study to investigate the potential health benefits of this MVMM and phytochemical formulation in healthy individuals, particularly their effects on biomarkers associated with oxidative stress and inflammation. The measurements included the plasma concentrations of carotenoids, folate, vitamin B12, and homocysteine, serum levels of oxidized low-density lipoprotein (oxLDL), high-sensitivity C-reactive protein (hsCRP), F2-isoprostane, plasminogen activator inhibitor-1 (PAI-1), and myeloperoxidase (MPO).

Methods/Design

Subjects: Eligible participants were men and women between 18 and 65 years of age (inclusive) who were willing to maintain current exercise practice and to adopt the study diet. The research was carried out in compliance with the Helsinki Declaration of 1975, and the study was approved by the Copernicus Group Independent Review Board (Durham, NC). Informed written consent was obtained from all participants prior to enrollment in the study.

Study Design: The pilot study employed a one-group pre-post design (Figure 1). At Visit 1 (Week 0), participants were instructed to begin a 2-week diet only phase which limited intake of fruits and vegetables to a total of 2 servings/day. At Visit 2 (Week 2), participants continued with the same restricted diet and were instructed to begin taking 2 tablets of the study product every morning with a meal for the subsequent 4 weeks. Compliance with protocol was monitored at Visit 3 (Week 6) by count of remaining study product and evaluation of diet diaries. At Visit 2 and Visit 3, fasting blood samples were obtained and stored at -400C prior to analysis. At each visit, the study investigator performed a clinical evaluation and recorded any suspected adverse event.



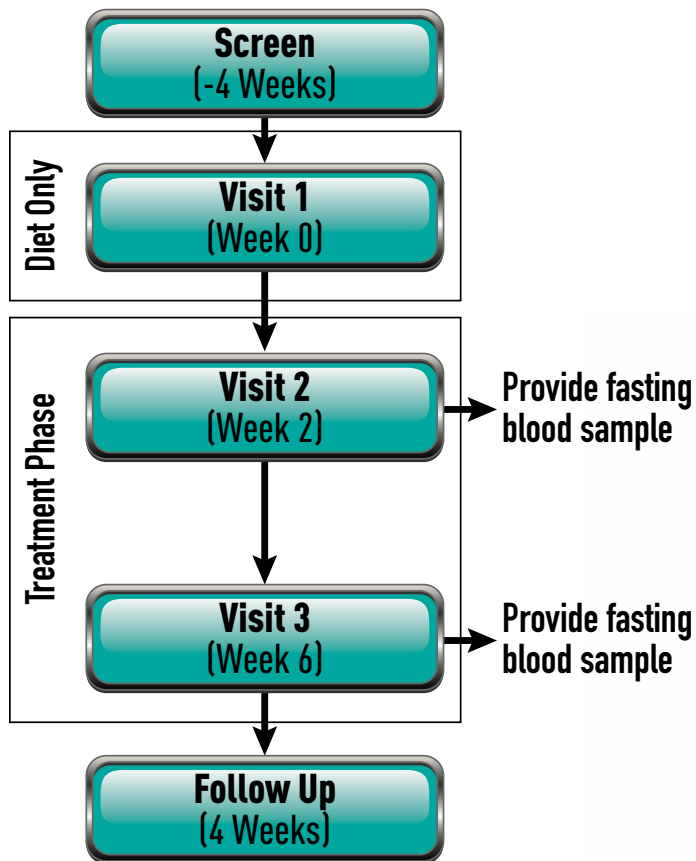


Figure 1. Study flow chart.

Study product: The amounts of vitamins and minerals per tablet in this study product are typical of commercially available MVMM supplements and are provided at or below the Recommended Daily Intake (RDI) as recommended by the Institute of Medicine. Five ingredients (vitamin B12, pantothenic acid, vitamin B6, riboflavin and thiamin) are provided at doses greater than the RDI. The dose for vitamin B6 is less than the Tolerable Upper Intake Level; these limits are not established for vitamin B12, pantothenic acid, riboflavin and thiamin. Each tablet also contains lycopene (6 mg), zeaxanthin (2 mg), lutein (6 mg), and resveratrol (10 mg). The phytochemical blend (400 mg/tablet) includes citrus bioflavonoids [standardized to (std.) 45% hesperidin], green coffee bean extract (std. 45% chlorogenic acid), pomegranate whole fruit extract (std. 40% ellagic acid), grape seed extract (std. 90% polyphenols), blueberry fruit extract (std. 30% total polyphenols and 12% anthocyanins), green tea leaf extract (std. 60% catechins and 40% EGCG), bitter melon fruit extract (std. 5% bitter principles), prune skin extract (std. 50% polyphenols), watercress herb 4:1 extract, Chinese cinnamon bark powder, Indian gum Arabic tree bark and heart wood extract (std. 6% catechins), rosemary extract (std. 11% min. phenolic diterpenes and 7.6% min. sum of carnosol+carnosic acid), and artichoke leaf extract (std. 0.3% cynarins and 1% chologenic acid).

Laboratory analysis: Plasma carotenoids were quantified using HPLC-UV method.¹⁴ Plasma folate and vitamin B12 levels were quantified using electrochemiluminescence immunoassay (Roche Diagnostics). Plasma homocysteine levels were measured using an enzymatic method (Diazyme Laboratories). Serum oxLDL and MPO levels were measured using a solid phase two-site oxLDL ELISA Kit (Mercodia). Serum PAI-1 levels were measured using a solid phase PAI-1 Human ELISA Kit (Invitrogen). F2-isoprostane was measured

using a proprietary LC MS/MS method. hsCRP was measured using an immunoturbidimetric method (Roche Diagnostics).

Statistical analysis: Changes from Visit 2 to Visit 3 were analyzed using two-sided paired t-tests. Data were reported as mean \pm standard error (SE). $P < 0.05$ was considered significant.

Results

Baseline characteristics

The 15 participants (8 women and 7 men) enrolled in and completed the study. Their average age (mean \pm SD) was 41.7 ± 14.9 years old, and their body mass index (BMI) 28.0 ± 5.6 kg/m².



Primary endpoints

After 4 weeks of supplementation with the study product, serum concentration of carotenoids, folate, and vitamin B12 were significantly increased compared to baseline. Homocysteine was unchanged (Table 1).

Table 1. Plasma levels of carotenoids, folate, vitamin B12 and homocysteine at baseline and 4 weeks after nutritional supplement consumption. Data from NHANES 2001-2006 adult men and women aged 20-85 are provided as references.[15] Data are expressed as mean \pm SE.

Variable	Week 2 (Visit 2)	Week 6 (Visit 3)	P Value	NHANES Men	NHANES Women
Carotenoids ($\mu\text{M/L}$)				Carotenoids ($\mu\text{M/L}$)	
cis-lycopene	0.127 \pm 0.019	0.201 \pm 0.024	<0.001	total lycopene	0.456 \pm 0.008
trans-lycopene	0.162 \pm 0.020	0.219 \pm 0.023	<0.01	0	0
lutein	0.242 \pm 0.035	0.287 \pm 0.041	<0.05	lutein/zeaxanthin	0.279 \pm 0.005
zeaxanthin	0.080 \pm 0.012	0.298 \pm 0.029	<0.001	0	0
α -carotene	0.102 \pm 0.022	0.143 \pm 0.028	<0.01	α -carotene	0.072 \pm 0.004
β -carotene	0.312 \pm 0.058	0.747 \pm 0.113	<0.001	β -carotene	0.310 \pm 0.010
β -cryptoxanthin	0.160 \pm 0.022	0.334 \pm 0.033	<0.001	β -cryptoxanthin	0.161 \pm 0.004
Folate (nM/L)	28.3	46.5	<0.001	Folate (nM/L)	28.4 \pm 0.4
Vitamin B12 (pM/L)	472.3	544.8	<0.01	Vitamin B12 (pM/L)	373.2 \pm 4.8
Homocysteine ($\mu\text{M/L}$)	7.80 \pm 0.62	8.00 \pm 0.74	0.375	Homocysteine ($\mu\text{M/L}$)	9.0 \pm 0.1

Secondary endpoints

A significant reduction in oxidized LDL-C was observed from 54.0 \pm 3.3 U/L at Visit 2 to 45.0 \pm 2.9 U/L at the end of the intervention (Figure 2). PAI-1 also was significantly reduced at Week 6 (4499 \pm 194 pg/ml) compared to Week 2 (5914 \pm 243 pg/ml). Similarly, MPO was significantly reduced as a result of the PR-581 intervention, from 236 \pm 24 $\mu\text{g/L}$ at Visit 2 to 165 \pm 21 $\mu\text{g/L}$ at Visit 3. F2-isoprostane and hc-CRP was not significantly different between Visit 2 and Visit 3.

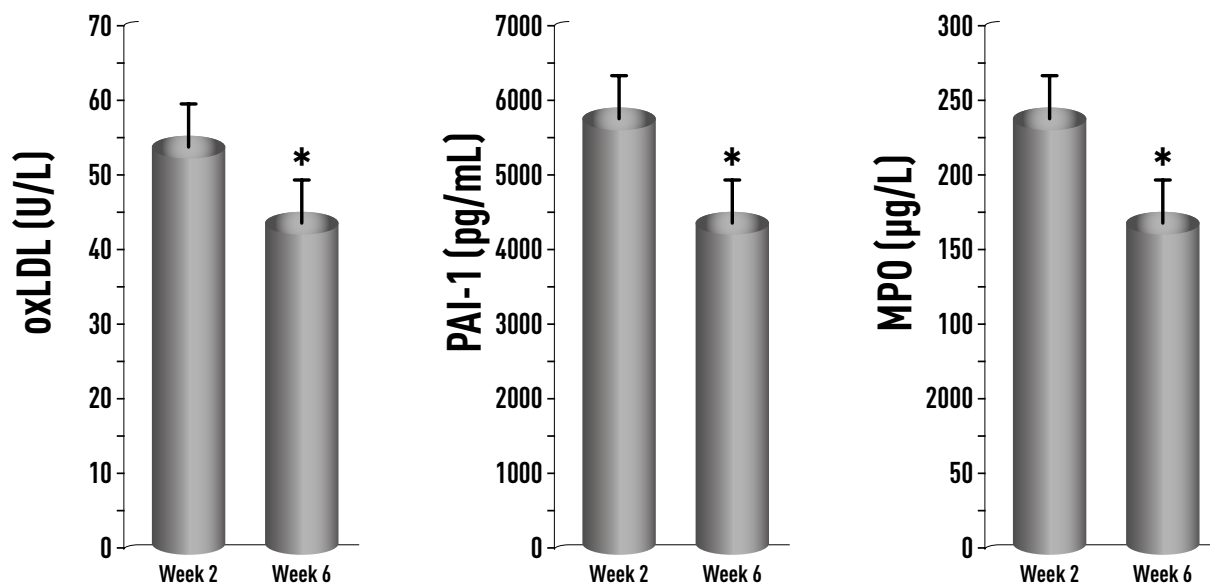


Figure 2. Serum levels of oxidized low-density lipoprotein cholesterol (oxLDL), plasminogen activator inhibitor-1 (PAI-1), and myeloperoxidase (MPO) at Week 2 and Week 6. * P <0.01.

Safety evaluation

A total of 13 mild, self-limited adverse events were reported by 8 participants throughout the study. Nausea (n=3), abdominal discomfort (n=2), and vomiting (n=1), appeared related to having taken the study product without food. Other reported events were headache (n=2), irritability (n=1), green urine (n=1), confusion (n=1), fatigue (n=1), and upper respiratory infection (n=1); the study investigator evaluated each event and determined that they were unlikely related to the nutritional supplement.

Discussion

After 4-week use of the phytochemical-MVMM formulation, circulating levels of carotenoids, folate and vitamin B12 were significantly increased in this open-label pilot study. Plasma carotenoids are valid biomarkers of vegetable and fruit intake in the human diet. Since the study participants were restricted on the servings of fruit and vegetable during the study, the increased levels of carotenoids (as well as folate and vitamin B12) indicate that the study supplement is bioavailable.

Scientific literature on the role of carotenoids in cardioprotection, chemoprevention, DNA stability, and healthy aging is expanding rapidly every day.^[16,17] They act as antioxidants and to absorb UV light, protecting the skin and eyes from damage.^[18] The amount of macular pigment, composed of lutein and zeaxanthin, is inversely associated with the incidence of age-related macular degeneration.^[19] β -cryptoxanthin has a potential as an osteogenic factor in preventing osteoporosis in human subjects.^[20] Last, but not least, studies have found that lycopene is one of the most potent in vitro antioxidants, and blood lycopene concentrations are associated with decreased cardiovascular disease and prostate cancer risk.^[21]

This study also reported that after 4-week use of the study product circulating levels of oxLDL, MPO, and PAI-1 were significantly decreased. Oxidative modification of LDL – and the formation of oxLDL – is involved in the pathogenesis of atherosclerosis.^[22] As oxLDL levels correlate with cardiovascular events, research has suggested that oxLDL levels could be a useful marker for cardiovascular risk.^[23] MPO, a member of the heme peroxidase superfamily that is released upon leukocyte activation, has been found to reflect endothelial dysfunction, inflammation, atherosclerosis and oxidative stress,^[24,25] suggesting its value in predicting cardiovascular disease in certain populations.^[26] PAI-1, secreted by adipose tissue, has been found to increase in obese individuals and type 2 diabetes patients.^[27,28] Studies have also shown that serum levels of PAI-1 are predictive of incident of cardiovascular disease.^[29] Further, PAI-1 could act as an inflammatory mediator that negatively impact cardiovascular health.^[30] Therefore, this phytochemical-MVMM formulation may have the potential in improving certain markers of inflammation, oxidative stress, and cardiovascular disease.

As part of a healthy lifestyle including regular physical exercise and healthy dietary patterns (e.g., the Mediterranean diet), we believe that daily use of this phytochemical-rich multivitamin-multimineral nutritional supplement may provide additional phytonutrients that support the body's antioxidant and detoxification mechanisms as well as other health benefits by significantly reducing serum levels of oxLDL, MPO and PAI-1 in healthy individuals.

References

1. Block G, Patterson B, Subar A. Fruit, vegetables, and cancer prevention: a review of the epidemiological evidence. *Nutr Cancer* 1992;18:1-29.
2. Boeing H, Bechthold A, Bub A, et al. Critical review: vegetables and fruit in the prevention of chronic diseases. *Eur J Nutr* 2012;51:637-63.
3. Steinmetz KA, Potter JD. Vegetables, fruit, and cancer. I. Epidemiology. *Cancer Causes Control* 1991;2:325-57.
4. Heber D. Vegetables, fruits and phytoestrogens in the prevention of diseases. *J Postgrad Med* 2004;50:145-9.
5. Hooper PL, Hooper PL, Tytelt M, Vigh L. Xenohormesis: health benefits from an eon of plant stress response evolution. *Cell Stress Chaperones* 2010;15:761-70.
6. Malireddy S, Kotha SR, Secor JD, et al. Phytochemical antioxidants modulate mammalian cellular epigenome: implications in health and disease. *Antioxid Redox Signal* 2012;17:327-39.
7. Liu LK, Lee HJ, Shih YW, Chyau CC, Wang CJ. Mulberry anthocyanin extracts inhibit LDL oxidation and macrophage-derived foam cell formation induced by oxidative LDL. *J Food Sci* 2008;73:H113-21.
8. Stoner GD, Wang LS, Casto BC. Laboratory and clinical studies of cancer chemoprevention by antioxidants in berries. *Carcinogenesis* 2008;29:1665-74.
9. Kwon KH, Barve A, Yu S, Huang MT, Kong AN. Cancer chemoprevention by phytochemicals: potential molecular targets, biomarkers and animal models. *Acta Pharmacol Sin* 2007;28:1409-21.
10. Son TG, Camandola S, Mattson MP. Hormetic dietary phytochemicals. *Neuromolecular Med* 2008;10:236-46.
11. Murphy MM, Barraj LM, Herman D, et al. Phytonutrient intake by adults in the United States in relation to fruit and vegetable consumption. *J Acad Nutr Diet* 2012;112:222-9.
12. Bailey RL, Gahche JJ, Lentino CV, et al. Dietary supplement use in the United States, 2003-2006. *J Nutr* 2011;141:261-6.
13. Thompson HJ, Heimendinger J, Diker A, et al. Dietary botanical diversity affects the reduction of oxidative biomarkers in women due to high vegetable and fruit intake. *J Nutr* 2006;136:2207-12.
14. Ribaya-Mercado JD, Maramag CC, Tengco LW, Blumberg JB, Solon FS. Relationships of body mass index with serum carotenoids, tocopherols and retinol at steady-state and in response to a carotenoid-rich vegetable diet intervention in Filipino schoolchildren. *Biosci Rep* 2008;28:97-106.
15. Beydoun MA, Shroff MR, Chen X, et al. Serum antioxidant status is associated with metabolic syndrome among U.S. adults in recent national surveys. *J Nutr* 2011;141:903-13.
16. Azqueta A, Collins AR. Carotenoids and DNA damage. *Mutat Res* 2012;733:4-13.
17. Tanaka T, Shnimizu M, Moriwaki H. Cancer chemoprevention by carotenoids. *Molecules* 2012;17:3202-42.
18. Diplock AT, Charleux JL, Crozier-Willi G, et al. Functional food science and defence against reactive oxidative species. *Br J Nutr* 1998;80 Suppl 1:S77-112.
19. Krinsky NI, Landrum JT, Bone RA. Biologic mechanisms of the protective role of lutein and zeaxanthin in the eye. *Annu Rev Nutr* 2003;23:171-201.
20. Yamaguchi M. Role of carotenoid beta-cryptoxanthin in bone homeostasis. *J Biomed Sci* 2012;19:36.
21. Erdman JW, Jr., Ford NA, Lindshield BL. Are the health attributes of lycopene related to its antioxidant function? *Arch Biochem Biophys* 2009;483:229-35.
22. Steinberg D, Parthasarathy S, Carew TE, Khoo JC, Witztum JL. Beyond cholesterol. Modifications of low-density lipoprotein that increase its atherogenicity. *N Engl J Med* 1989;320:915-24.
23. Itabe H, Ueda M. Measurement of plasma oxidized low-density lipoprotein and its clinical implications. *J Atheroscler Thromb* 2007;14:1-11.
24. Podrez EA, Schmitt D, Hoff HF, Hazen SL. Myeloperoxidase-generated reactive nitrogen species convert LDL into an atherogenic form in vitro. *J Clin Invest* 1999;103:1547-60.
25. Vita JA, Brennan ML, Gokce N, et al. Serum myeloperoxidase levels independently predict endothelial dysfunction in humans. *Circulation* 2004;110:1134-9.
26. Michowitz Y, Kisel S, Guzner-Gur H, et al. Usefulness of serum myeloperoxidase in prediction of mortality in patients with severe heart failure. *Isr Med Assoc J* 2008;10:884-8.
27. Eriksson P, Reynisdottir S, Lonnqvist F, et al. Adipose tissue secretion of plasminogen activator inhibitor-1 in non-obese and obese individuals. *Diabetologia* 1998;41:65-71.
28. Alessi MC, Juhan-Vague I. PAI-1 and the metabolic syndrome: links, causes, and consequences. *Arterioscler Thromb Vasc Biol* 2006;26:2200-7.
29. Thogersen AM, Jansson JH, Boman K, et al. High plasminogen activator inhibitor and tissue plasminogen activator levels in plasma precede a first acute myocardial infarction in both men and women: evidence for the fibrinolytic system as an independent primary risk factor. *Circulation* 1998;98:2241-7.
30. Kruihof EK, Gudinchet A, Bachmann F. Plasminogen activator inhibitor 1 and plasminogen activator inhibitor 2 in various disease states. *Thromb Haemost* 1988;59:7-12.

Understanding Telomeres and Telomerase Activation Workshop

Friday, September 12th @ 6:15pm

Dr. Ron Rothenberg of the California Healthspan Institute

THIS WORKSHOP BY DR. ROTHENBERG WILL COVER:

- What are telomeres and why they are important
- Impact of telomere shortening and how to address it
- How to achieve natural telomerase activation with TA-65MD®
- How TA-65MD® works with and boosts the immune system
- Utilizing TA-65MD® in practice along with testing options to validate results with patients
- Case studies utilizing TA-65MD®

Please RSVP to sebastian@tasciences.com to allow an appropriate head count for wine and light bites.

For further information and updates in research about the proven telomerase activator, TA-65MD®, please visit booth #28. We will have conference specials to help you get started and answer any questions you might have about T.A. Sciences®.



Website: **WWW.TASCIENCES.COM**
Doctor's Brochure: www.tasciences.com/brochure

Office: **(212) 588-8805**



THE FUTURE OF MEDICINE TODAY

ESTABLISHED 1992, A4M REPRESENTS 26,000 PHYSICIANS & SCIENTISTS FROM 120 COUNTRIES WORLDWIDE

2014 EDUCATION CALENDAR



SEPTEMBER 26-27, 2014

AUTOIMMUNE SYMPOSIUM



CHICAGO, IL

Chicago Marriott Downtown



OCTOBER 16-18, 2014

**IV Symposium
FAARM Fellowship**



NEW ORLEANS, LA

Sheraton New Orleans Hotel



NOVEMBER 6-8, 2014

BHRT Symposium



VANCOUVER, BC

Four Seasons Hotel Vancouver

DECEMBER 10-13, 2014

**22ND ANNUAL WORLD CONGRESS
ON ANTI-AGING MEDICINE**



**FAARM Fellowship
Board Certifications
Speciality Workshops**

**Morning General Sessions
Afternoon Track Sessions
300+ Exhibitors**

LAS VEGAS, NV

Venetian/Palazzo Resort





Absolute Service.
Absolute Professionalism.
Absolute Value.

Specialties Include:

- Bio-Identical Hormones (Men and Women)
- Sexual Dysfunction
- Customized Thyroid Medications (Including Sustained Release T-3: Only pharmacy in the United States Recommended for T-3 by Denis Wilson, MD, Wilson's Thyroid Temperature)
- IV Nutrients
- Lipo Injections, MIC Injections, and Bariatric Products
- Heavy Metal Detoxification

The Trusted
Source Of
Compounded
Medications
Since 1997

Get Started.

Phone (800) 526-9183
Fax (800) 526-9184
Email info@medaus.com
Refills medaus.com

Spotlight on the Fellowship in Anti-Aging, Regenerative & Functional Medicine



● Why the Fellowship is right for you

The Fellowship is a place to rediscover your passion for patient care. It allows you to continue caring for your patients while learning the most current and relevant integrative approaches for the prevention and treatment of disease. You can immediately begin to incorporate what you learn into your medical practice.

● What you will learn

The Fellowship is an interactive-educational experience with modular training that includes hands-on clinical training and web broadcasts, that will teach you the knowledge and skills you need to effectively practice Anti-Aging, Regenerative and Functional Medicine. This elite Fellowship comprises the latest findings in areas of endocrinology, cardiology, neurology, cancer therapies, nutrition and much more.

The Fellowship curriculum is designed for progressive learning and is created by world-renowned experts from a variety of disciplines.

Topics include:

- Endocrinology and Hormone Therapies
- Hypertension, Diabetes, Coronary Artery Disease
- Metabolic Syndrome
- Gastroenterology, Neurotransmitters, Neurology
- Amino Acid and Fatty Acid Metabolism
- Osteoporosis and Nutrition
- Laboratory Evaluations
- Case Studies...and more!



Pamela W. Smith, MD, MPH, MS
Director of the Anti-Aging,
Regenerative & Functional Fellowship



● Fellowship Requirements

Fellow in Anti-Aging and Regenerative Medicine (FAARM)

- Modules I-V
- 40 Webcasts
- A4M Board Certification
- A4M Membership

Fellow in Anti-Aging, Regenerative and Functional Medicine (FAARFM)

- Modules I–VIII
- 40 Webcasts
- A4M Board Certification
- A4M Membership

● University of South Florida Master’s Degree Preparation Modules I-VIII

A first-of-its-kind Master’s Degree in Metabolic and Nutritional Medicine is now available through the University of South Florida School of Medicine, College of Biomedical Sciences. This program is available to physicians and practitioners in collaboration with the Fellowship in Anti-Aging, Regenerative and Functional Medicine, Modules I through VIII. Become a part of the new wave of medicine and take advantage of this opportunity to enhance patient care and revitalize your practice.

- Modules I-VIII
- 2 A4M Elective Modules
- 11 Courses with USF
- A4M Board Certification
- A4M Membership
- 50 Webcasts

Advanced Education

Fellowship in Integrative Cancer Therapies



● Why the Fellowship is right for you

The A4M Fellowship in Integrative Cancer Therapies is the most advanced, progressive educational program on treating and preventing both early and advanced stage cancers.

This program will give practitioners the tools necessary to immediately integrate cancer fighting modalities into their practice.

● Fellowship Completion Requirements

- Modules I-VIII
- A4M Board Certification
- A4M Membership
- 40 Webcasts

● University of South Florida Master's Degree Requirements

- Modules I-VIII
- A4M 2 Elective Modules
- 11 Courses with USF
- A4M Board Certification
- A4M Membership
- 50 Webcasts

The Aesthetic Anti-Aging Fellowship



● Why this Fellowship is right for you

The Fellowship is a post-graduate training program which combines online audiovisual lectures and hands-on tutorials in a clinical setting. The Fellowship denotes peer recognition in one of the fastest growing medical specialties. Also, the Fellowship will provide medical practitioners with a maximum exposure to the scientific, clinical and industry information necessary to introduce noninvasive aesthetic procedures in their practice.

● Fellowship Completion Requirements

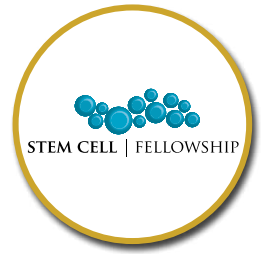
Completion of modules I-VII (I-III are didactic and available online; IV-VII are hands-on training)

- A4M Membership
- 12 Case Studies:
 - 2 Botox/2 filler (4 for Module IV)
 - 4 laser/light (4 for Module V)
 - 2 chemical peel/2 sclerotherapy (4 for Module VI)
- Aesthetics Written Exam

PROGRAMS NOW ONLINE!

Experience all the benefits of the live program from the comfort of your home or office.

Fellowship & Certification Programs



Stem Cell Fellowship

● Why the Fellowship is right for you

By enrolling in the Fellowship, you will learn how to treat the diseases associated with aging with stem cell therapies - the medicine of the future. After completion of this modular training program, physicians will be able to intelligently decide which stem cell protocols to recommend to their patients. Become a pioneer in stem cells and the future of Regenerative Medicine.

● Fellowship Completion Requirements

- Modules I-IV are didactic and available online
- Module V is hands-on training
- A4M Board Certification
- A4M Membership

Sexual Health & Treatment Certification Program

● Why this certification is right for you

The Sexual Health Certification Program offers healthcare practitioners the opportunity to increase their knowledge and experience for evaluating, diagnosing and treating sexual health disorders in all patients of all ages, genders and sexualities. Topics such as hormone depletion affecting sexual health, sexual dysfunction, issues in gay and transgender patients are covered in this certification program.

● What you will learn

- Female Sexual Health
- Male Sexual Health, Gay and Transgender Therapy
- Impact of Medical and Psychological Conditions on Sexuality
- Hormones and Sexual Dysfunction plus Sex and Pregnancy

● Completion Requirements

- Modules A-D
- A4M Membership





THE FUTURE OF MEDICINE TODAY

ESTABLISHED 1992, A4M REPRESENTS 26,000 PHYSICIANS & SCIENTISTS FROM 120 COUNTRIES WORLDWIDE

Join the elite group of physicians and other healthcare providers that are certified by the University of South Florida College of Medicine in these important fields. The courses are offered by the American Academy of Anti-Aging Medicine across the country and are designed for a busy healthcare practitioner to easily complete.

• Advanced Metabolic Endocrinology Certification •

This program will discuss various areas of hormonal imbalances in men and women including advanced topics in adrenal health, breast health, estrogen metabolism, late life hypogonadism and prostate cancer.

Fellowship Module I, A – D

- Module A Functional Overview of Hormonal Changes that Manifest in Men and Women with Aging
- Module B Advanced Hormonal Prescribing and Herbal Therapies for Women
- Module C Advanced Insulin Therapies and Hormones/Botanicals and Pregnancy
- Module D Men's Health and Advanced Compounding for Hormonal Treatments

• Weight Management Certification •

In this program you will learn the unique relationship between adrenal dysfunction stress with hormonal imbalance and weight gain plus weight loss plateaus. Participants will recognize and understand the prevalence of adult obesity and the risk factors involved and understand the bio-chemistry of how the body breaks down proteins, fats and carbohydrates.

Fellowship Module XIV, A – D

- Module A Individualized Weight Management for the Patient
- Module B Comprehensive Weight Loss for the Integrative Physician
- Module C Weight Management
- Module D Brain Directed Weight Loss

• Brain Fitness Certification •

One of the major medical issues that will affect all of our patients is how to maintain memory throughout their life. The Brain Fitness Modules XV: A-D are a group of four modules that will give you new skills to help patients prevent memory loss along with treat patients who already have cognitive decline.

Fellowship Module XV, A – D

- Module A The Basics of Brain Fitness and Memory Maintenance
- Module B How the Brain Learns and Metabolism of the Brain
- Module C Dementia Disorders: A Practical Guide for Clinicians
- Module D Brain Fitness Therapies

• Metabolic Cardiovascular Certification •

The modules will start with basic teaching of vascular biology concepts and how this relates to vascular disease. Vascular aging pathophysiology, diagnosis, prevention and treatment will be reviewed as well. Dyslipidemia will be defined based on new basic science and clinical research. Inflammation, oxidative stress, the role for expanded lipid profiles using LDL and HDL particle size and number are reviewed in the context of the pathophysiology of vascular damage. Proper analysis of CV risk factors, mediators and CV risk scoring will be taught using the COSEHC risk analysis methods. Review of CVD labs and noninvasive CV tests will be reviewed. The role of heavy metals in CVD will be extensively reviewed based on a functional medicine model.

Fellowship Module XVI, A – D

- Module A How to Apply Nutrition, Exercise and Weight Management Programs Related to Vascular Biology
- Module B Components of Cardiovascular Disease
- Module C Nutritional and Dietary Therapies for Prevention and Treatment of Cardiovascular Disease
- Module D Various Conditions in Cardiovascular Disease

• Sports Medicine Certification •

This certification program focuses on the “science of eating,” including diet programs, recipes and nutrients that help athletes reach peak performance and success. Factors that hinder such success are also reviewed. The program discusses the body’s physiological response to exercise, treatments for sports-related conditions, biometrics, eating disorders, the aging athlete and psychology.

Fellowship Module XIX, A – D

- Module A The Body’s Physiological Response to Exercise
- Module B Treatments for Sports-Related Conditions
- Module C Biometrics and Eating Disorders
- Module D The Aging Athlete and Psychology

• Lifestyle Coaching Certification •

The Certification in Lifestyle Coaching teaches the healthcare practitioner how to properly administer information that will positively impact clinical outcomes and improve the overall standard of care. The client needs to live a healthy lifestyle and this course teaches you how to teach your client the proper steps. It’s about setting up your clients to succeed.

Fellowship Module XXIII, A – D

- Module A Wellness Revolution and How You Can Become a Part of the Solution
- Module B Basic Nutrition
- Module C Fundamentals of a Co-Active Coaching Model
- Module D Counseling the Patient and Improving Energy

• Certification Requirements •

- Completion of 4 FAARFM Certification Modules
- A4M Board Certification *(where applicable)
- Completion of 4 corresponding USF Courses
- A4M Membership





THE FUTURE OF MEDICINE TODAY

ESTABLISHED 1992, A4M REPRESENTS 26,000 PHYSICIANS & SCIENTISTS FROM 120 COUNTRIES WORLDWIDE

BECOME A4M BOARD CERTIFIED NOW KNOWLEDGE IS POWER



ABAARM EXAM
MD, DO, MBBS, DPM



ABAAHP EXAM
DC, DDS, ND, RN, LPN, PA, MA, RPh,
NP, PhD and Acupuncturist

A4M BOARD CERTIFICATION WILL GIVE YOU THE POWER TO:

- **RUN** a successful medical practice as a leading A4M Board Certified professional in your region. The credentials you earn denote recognition in the fastest growing, new high tech medical specialty.
- **TREAT** patients more effectively than traditional medical practitioners. Take an active interest in the science of longevity.
- **DEMONSTRATE** to your patients that you are committed to the prevention of diseases associated with aging. This certification process helps ensure that Metabolic physicians have grasped the essentials relating to the clinical application of Metabolic medical care.

REGISTER NOW! * All exam dates are subject to change.

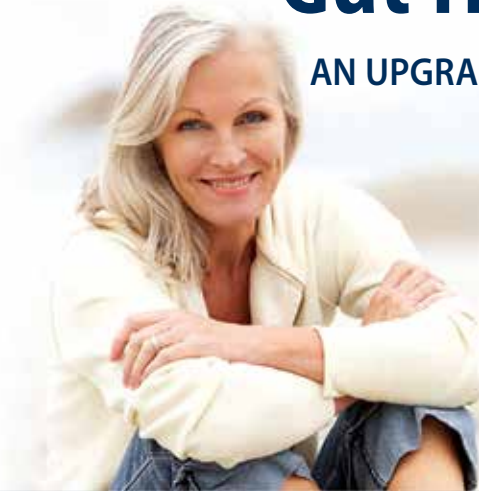
- | | | | |
|---|--------------------------------------|--|---|
| • October 24-26, 2014
Bali, Indonesia | • November 14-16, 2014
Dubai, UAE | • December 10-13, 2014
Las Vegas, NV | • February 25, 2015
Los Angeles, CA |
| • May 1-3, 2015
Kuala Lumpur, Malaysia | • May 6-9, 2015
Hollywood, FL | • September 16-19, 2015
New Orleans, LA | • December 10-13, 2015
Las Vegas, NV |

Register online at www.A4M.com or call 888.997.0112

Leading the Evolution in Gut Health Assessment

AN UPGRADE TO ADVANCED STOOL DIAGNOSTICS

GI *fx* **GI Effects Stool Profiles**



The upgraded **GI Effects Profiles** offer a comprehensive look at gastrointestinal health and provide the data you need to help effectively treat your patients with digestive complaints.

- **New Report with Synthesized Actionable Results and D.I.G. (Digestion, Inflammation, Gut Microbiome) format**
- **Enhanced Markers of Inflammation**, including **Calprotectin** (effective distinction between IBS/IBD) and **Eosinophil Protein X (EPX)**
- **Expanded Commensal Targets** for an enhanced assessment of the gut microbiome
- **Best of Technologic Platforms for Stool-based Testing**, including PCR and MALDI-TOF



Learn more at Table #25, or online at www.gdx.net/announce/gifx

GENOVA
DIAGNOSTICS®

ASHEVILLE • ATLANTA • LONDON

63 Zillicoa Street • Asheville NC 28801

800.552.4762 • www.gdx.net



SILVER LINING IN INTESTINAL HEALTH



by Robert Scott Bell


We live in a sea of many potential enemies threatening our gastrointestinal microflora. Beneficial microbes in our GI tract are the essential life forms that keep the pathogenic variety in check as long as the terrain remains in balance and out of chronic inflammation. This delicate balance, even when lost, can be restored by substances that modulate inflammation without adding to the toxic burden of the body. When disease-causing microorganisms multiply due to poor diet, antibiotics, chlorinated water, food poisoning or vaccines, the result is often referred to as dysbiosis. If health and longevity is your goal, reversing this situation becomes imperative. Dysbiosis contributes to irritable bowel syndrome (IBS) and to more serious conditions including Crohn's disease, colitis and "leaky gut", which are all various forms of inflammatory bowel diseases (IBDs).

An estimated 1.4 million people in the United States are affected by an IBD—the symptoms of which are most often varying degrees of abdominal pain and chronic diarrhea. IBS is even more common, affecting 10 to 20 percent of the world's population. These instances of chronic gut inflammation can lead to malabsorption, metabolic shifts and dramatic weight loss or gain.

Although bioactive silver hydrosol is recognized as a broad spectrum antimicrobial, its ability to help restore gastrointestinal health may be equally important. Silver's anti-inflammatory and tissue-regenerative properties are often overlooked in gastrointestinal healing protocols.

The January 2007 issue of ChemMedChem included research on silver's wound-healing and antimicrobial properties. The results provide "insight into the actions of silver and have provided a novel therapeutic direction for wound treatment in clinical practice." Silver's regenerative properties have been further studied in burn victims. According to the September 2011 edition of the South African Medical Journal, silver-coated dressings have been developed as a first-line treatment in South African burn centers where burns are a leading cause of non-natural death in infants and children. With silver's wound-support capability, research is warranted for its intestinal tissue-regenerative properties on epithelial tissue there.

In addition, cannabidiol (CBD) from the industrial hemp plant may be used to further accelerate tissue healing and recovery. Restoration of motility within the colon is an essential part of functional recovery within the latter part of the alimentary canal. In recent mouse studies, CBD shows benefit to gastrointestinal healing by restoring motility function in order to move matter through the colon.



Recent published research by Dr. Jeff Bradstreet indicates that CBD may have a profound effect on functional motility. An essential part of the healing process involves enhancing the detoxification functions of the body. CBD isn't new. Humanity has been using cannabis for millennia. Research indicates CBD, an all-natural constituent of all cannabis plants, contributes to a variety of detoxification processes. A survey of the available research indicates that CBD's detoxification capability is merely the tip of the proverbial iceberg of its therapeutic benefits.

A persistent myth when it comes to cannabis is that there "is not enough research" to document its safety and its long-term effects. The reality is that there are decades of research that have already been done on CBD, dating back over fifty years. A most interesting document, co-authored by Nobel Laureate Julius Axelrod, US Patent #6,630,507 (the "507 Patent") clearly states CBD has anti-oxidant or anti-aging properties. The abstract of the patent reads as follows:

"Cannabinoids have been found to have antioxidant properties, unrelated to NMDA receptor antagonism. This new found property makes cannabinoids useful in the treatment and prophylaxis of wide variety of oxidation associated diseases, such as ischemic, age-related, inflammatory and autoimmune diseases. The cannabinoids are found to have particular application as neuroprotectants, for example in limiting neurological damage following ischemic insults, such as stroke and trauma, or in the treatment of neurodegenerative diseases, such as Alzheimer's disease, Parkinson's disease and HIV dementia. Nonpsychoactive cannabinoids, such as cannabidiol, are particularly advantageous to use because they avoid toxicity that is encountered with psychoactive cannabinoids at high doses useful in the method of the present invention. A particular disclosed class of cannabinoids useful as neuroprotective antioxidants is formula (I) wherein the R group is independently selected from the group consisting of H, CH₃, and COCH₃."

A fairly comprehensive review of research into the endocannabinoid system and cannabinoids by Alexandros Makriyannis, PhD is published in the Journal of Medicinal Chemistry. Dr. Makriyannis was among the first to define the biochemical pathways of endocannabinoids within the human endocannabinoid system (ECS). A recent article at News@Northeastern (the newspaper for Northeastern University in Boston) about Professor Makriyannis' most recent work discusses his efforts to create an "on and off switch" for drugs to avoid toxic side effects. This article states, "In this research, Makriyannis' team presents more than 100 compounds that are variants of drugs the researchers previously patented. These new drugs target the endocannabinoid system, which includes receptors within the surface of cells throughout our bodies that are responsible for functions like pain, mood, memory, and appetite modulation."

How does an all-natural plant compound, CBD, have such widespread effects on a broad range of ailments? According to Dr. James Bradstreet, MD research continues to show that the common denominator is the human endocannabinoid system supplemented with CBD; the combination regulates all body functions "like a thermostat". Dr. Bradstreet's research, like the research of countless doctors and scientists, further indicates that all ailments stem from inflammation. As stated in the "507 Patent", CBD is proven to have powerful anti-inflammatory and anti-oxidant properties, getting to the root of disease like few other compounds.

As this ancient plant rapidly becomes popular again, whether you are naturopathic doctor, a holistic practitioner or an MD, CBD is worth looking into for your practice and patients. Thousands of studies on CBD and cannabis are currently available on PubMed and other portals of peer-reviewed research.

Intestinal Health Protocol

For more than 24 years, I have utilized many natural health protocols to help people with gut dysbiosis issues. However, what follows is the most profound, direct and simple method for restoring intestinal integrity that I have ever found. Simply begin by mixing two tablespoons of bioactive silver hydrosol with two tablespoons aloe vera juice, drinking on an empty stomach: 30 minutes before breakfast, 30 minutes before lunch and 30 minutes before dinner. Those who weigh less than 120 pounds can use half the dose. Because taking silver hydrosol and aloe vera juice on an empty stomach cleanses the intestinal tract, it is a good idea to take a high-quality probiotic every night before going to bed to help restore balance while on this protocol. There is potential for die-off reactions due to the interactivity of silver hydrosol with yeast, bacteria and viruses. To increase glutathione production and help with liver detoxification, I utilize 100 mcg or 200 mcg whole food selenium daily. You may consider 400 to 800 IU of a natural vitamin E once a week to further restore nutrients that interact with silver in trace amounts. Cannabidiol is also a powerful botanical sourced adjunct to accelerate epithelial integrity.

Silver can also be helpful during instances of food poisoning. I recommend taking one to two tablespoons of silver hydrosol every 15 minutes. After the first hour, reduce dose to one to two tablespoons every 30 minutes. The discomfort, bloating, nausea and unease should begin to decrease in less than four hours. The rapid release of a large quantity of bacterial toxins can stimulate a vomit reaction. Although vomiting is unpleasant, this bacterial toxin reaction can only happen once and is evidence the silver is working effectively.

The one-two punch of silver and CBD may be a powerful way to establish and maintain gut health and, therefore, immune health. These synergistic compounds have demonstrated numerous benefits on their own. Given the scientific inquiry and the public's increasing demand for a systemic solution for their chronic health concerns, using these compounds in any practice is well worth investigating.

References

Cox SG et al. "Treatment of pediatric burns with a nanocrystalline silver dressing compared with standard wound care in a burns unit: a cost analysis." *S Afr Med J*. 2011 Sep 27;101(10):728-31.

Tian J et al. "Topical delivery of silver nanoparticles promotes wound healing." *ChemMedChem*. 2007 Jan 15;2(1):129-36.

<http://www.google.com/patents/US6630507>

<http://drbradstreet.org/?s=gcmfP>

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3996516/>

<http://radio.naturalnews.com/download.asp?fileid=3894>

<http://www.northeastern.edu/news/2014/06/makriyannis-2/#sthash.Jwq99DlG.dpuf>

About Robert Scott Bell:

Robert Scott Bell, host of The Robert Scott Bell Show and in broadcast media since 1999, covers news stories in the health, political and economic worlds for 2 hours each day, 6 days a week in both radio and TV formats.

His commentary crosses the political, economic and cultural divide, drawn from his 24 years of experience in the natural health care sector, whether providing direct support to those in need or working with physicians on their toughest cases. He makes sense out of medical propaganda, taking the complex and breaking it down into forms much easier to understand. His bottom line is bringing the freedom and power to heal back to the people, where it belongs.

Robert is a homeopathic practitioner and has served on the board of the American Association of Homeopathic Pharmacists. He has a passion for health and healing unmatched by anybody in media. He personally overcame numerous chronic diseases more than 24 years ago using natural healing principles and has dedicated his life to revealing the healing power within us all.

You will be amazed by the amount of information about healing that is kept secret from you and what you can do to learn more about it! Robert now shares his messages of physical, emotional, mental, economic and political healing through his radio show. You can hear Robert live from Noon to 3-5 PM (Eastern) Monday through Friday. The Robert Scott Bell Show has a global audience that streams live on the internet weekdays from 3:00pm – 5:00pm ET and Sundays from 1:00 – 3:00pm ET on Natural News Radio Network and Genesis Communications Network. The show rebroadcasts on UK Health Radio; in Australia on Digital 103; and is also available through iTunes, Stitcher, GCN, and other online radio outlets. The Robert Scott Bell Show averages 1.2 million downloads of their archived shows every month. Visit www.RobertScottBell.com for more details.



Your new life starts from within.

Have you had your hemp CBD today?



Award-Winning
Hemp Oils



Skin / Hair
Care



Nutritional
Supplements



Hemp CBD
Drops

The World's Largest Distributor of CBD-Rich Hemp Oil Products
Available in All 50 States

HempMedsPX.com 866.273.8502

HempMeds





THE FUTURE OF MEDICINE TODAY

ESTABLISHED 1992, A4M REPRESENTS 26,000 PHYSICIANS & SCIENTISTS FROM 120 COUNTRIES WORLDWIDE

Nutritional IV Therapy Symposium

October 17-18, 2014 New Orleans, LA

This symposium is designed for physicians, nurse practitioners, and other medical professionals looking to develop their knowledge of intravenous nutritional therapies. This course will cover the fundamentals and expand on the use of vitamins, minerals, amino acids, and other unique parenteral compounds. Attendees will leave the symposium with a thorough understanding of IV therapy and the ability to implement various IV protocols when they return to their practices.

- Learn how to safely administer IV therapy & assess patient progress
- Review the operational aspects of IV room set-up, equipment, & supplies needed
- Understand how to calculate osmolarity & why pH is important
- Become familiar with diagnostic & evaluation testing requirements



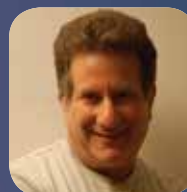
Sheraton New Orleans
500 Canal Street
New Orleans, LA 70130
(504) 525-2500 for reservations



Guy DaSilva, MD, ABAARM
Functional Medicine Specialist



Paul S. Anderson, ND
IV Therapies Expert



Mitchell Ghen, DO, PhD
Holistic and Integrative
Medicine Expert



Join us for

**How to Balance the Symphony-Pituitary/Thyroid/Adrenal/Gonadal/Gut
A new paradigm for Optimal Thyroid Management**

BHRT Symposium and A4M Fellowships
SPONSORED WORKSHOP

September 11th 2014 | Phoenix, AZ | Sheraton

SPEAKER: Dr. Mark Menolascino MD

DATE: Thursday, September 11th, 2014

LOCATION: Valley of the Sun Ballroom

TIME: 6:15 PM



COMPLIMENTARY WINE AND HORS D'OEUVRES WILL BE PROVIDED.

**How to Balance the Symphony-Pituitary/Thyroid/Adrenal/Gonadal/Gut
A new paradigm for Optimal Thyroid Management**

- Identify presentation of hypothyroidism, hormone imbalance, adrenal fatigue and identify risk factors for imbalance
- Provide optimal testing and treatment protocols balance the 'symphony'-understanding and optimizing the pituitary, thyroid, adrenal, gonadal, gut axis
- Learn nutritional and mind-body medicine protocols to support thyroid, adrenal and hormonal health

Both Nature-Throid® and WP Thyroid® are natural, hypoallergenic T4 and T3 hormone replacement medications, that utilize Thyroid USP. Most synthetic thyroid treatments contain only T4 hormone. Since Nature-Throid® and WP Thyroid® contain both T4 and T3 hormones, they can provide a more natural body response. There is simply no substitute for the healing benefits nature provides. Nature-Throid® is the classic solution for hypothyroid treatment. WP Thyroid® with fewer inactive ingredients, is now available for patients that require a purer formula. Both medications are hypoallergenic and deliver consistent hormone replacement.

Healthy Aging Therapeutics Symposium

Joseph B. Martin Conference Center at Harvard Medical School

September 20-21, 2014

77 Avenue Louis Pasteur, Boston, MA 02115



Keynote Presenters



Christoph Westphal, MD, PhD



Leonard Guarante, PhD



David Sinclair, PhD

Course Description:

Join some of the most distinguished healthy aging experts from academia, alongside the people who help turn discoveries into therapies. This includes biotech entrepreneurs, and highly specialized physicians-for our two-day, high-energy, uniquely interactive meeting at Harvard Medical School where networking and discussion take center stage.

Topics will include:

- Therapies Based on Sirtuin Biology
- Neuroplastic Change
- Dyslipidemic-Induced Vascular Disease
- Adult Stem Cell Maintenance
- Understanding the Biochemical Mechanism, Physiological Effects & Safety of Synthetic Sirtuin-Activating Compounds

Faculty to Include



David Perlmutter, MD



Mark Houston, MD



Alessio Fasano, MD



Mark Rosenberg, MD



Cellular Aging Stops Here

Inside every cell of your body, there is a powerful clock ticking away. It's telling your body to age, wrinkle, gray, and slow down.

That clock is your telomeres, the caps at the end of each strand of DNA that protect it, like the plastic tips at the end of shoelaces.

Telomeres shorten over time, leaving your DNA vulnerable to damage and causing your cells to age. But now, there is a groundbreaking new way to help slow down, or possibly even reverse, age and lifestyle related telomere shortening.

Based on Nobel Prize winning science, TA-65® – a proprietary, all natural plant-based compound – can help maintain or rebuild telomeres.

TA-65® is available from T.A. Sciences® as TA-65MD® nutritional supplements, or in a new skin cream formulation.



For more information and updates in research about our proven telomerase activator TA-65MD®, please visit booth #28. We will be running conference specials to help you get started and answer any questions you might have about T.A. Sciences®. Come learn about our advancements in telomerase activation products!

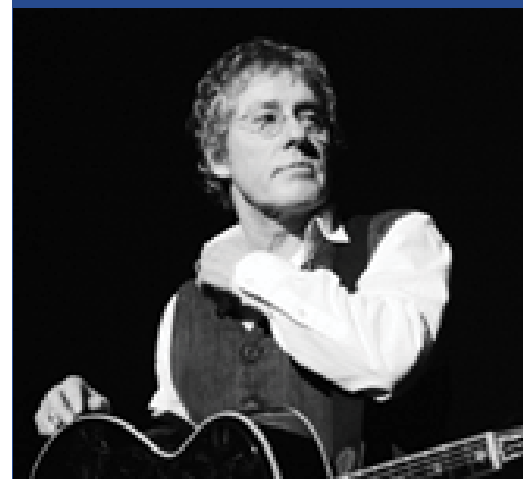
Website: www.tasciences.com
Doctor's Brochure: www.tasciences.com/brochure



"Maintaining good health through the stresses and strains of touring and singing with The Who requires enormous stamina. I was recommended TA-65® by a good friend and decided to try it. After taking TA-65® for one year I noticed considerable improvement in energy levels, cold and winter infections have been a rarity. Recently I took a 6 week break from taking the product, and noticed significant energy drop off."

Although to my knowledge the evidence of benefit to everyone is not proven, I have no doubt that this product works for me, I hope it does the same for you."

Roger Daltrey
Lead Singer, The Who





4 Reasons to Attend

- **Rediscover Your Passion**
- **Increase Your Revenue**
- **Improve Patient Care**
- **Revitalize Your Practice**

Immerse Yourself in Hands-On Education

Conference Topics:

- Metabolic Syndrome
- Hormonal Health
- Diagnostic Testing and Interpretations
- Stress & the Immune Response
- Functional Neurology
- The Science of Stem Cells
- PRP-New Research & Applications
- Clinical & Aesthetic Advancements
- Skin Technology, Skin Tightening Therapies & Procedures
- Nutrient Strategies
- Endocrine System
- Lifestyle Factors

Featured Presenters



David Katz, MD
December 11



Craig Venter, PhD
December 12



Alex Zhavoronkov, PhD
December 13

3 FULL DAYS OF UNPARALLELED EDUCATION

Advanced Education

Fellowship in Anti-Aging, Regenerative & Functional Medicine: (FAARM)

- **Module I:** A Metabolic, Anti-Aging & Functional Approach to Endocrinology
- **Module V:** Clinical Intensives
- **Module XV(B):** How the Brain Learns & Metabolism of the Brain
- **Module XVI(D):** Metabolic Cardiovascular Medicine

American Board of Anti-Aging & Regenerative Medicine: (ABAARM)

- Written Examination
- Oral Examination

American Board of Anti-Aging Health Practitioners: (ABAHP)

- Written Examination

Speciality Workshops

- **Power of Hormones**
- **Optimizing Sexual Function**
- **Pellet Therapy**
- **Personalized Lifestyle Medicine:** Relevance for Nutrients and Lifestyle Therapies
- **Laser & Light**
- **Reverse Physical Aging:** Hormone & Nutritional Therapies
- **Menopause/Andropause:** Improving the Health & Happiness of your Patients with Bio-identical Hormones

Enhance Your Conference Experience!

- **A4M Conference App** (for Smartphones)
- **Networking Reception**
- **Sponsored Evening Workshops**
- **A4M Bookstore**
- **Exhibit Hall**
- **Fellowship Graduation**
- **Product Theater**
- **Car Giveaway**

See you in
Las Vegas!

UNIQUE OMEGA E+

A novel, comprehensive approach to cardiovascular health and blood pressure. Formulated by leading nutrition and medical experts in the field, UNIQUE Omega E+™ greatly expands the established benefits of omega-3 fatty acids which are reflected in the qualified health claim approved by the FDA and the recommendation of the American Heart Association. This unique formulation supplies a strategic formulation of omega-3 fatty acids with natural, safe compounds that accentuate and expand its benefits. Key ingredients include: marine omega-3 fatty acids in triglyceride form, vitamin E as natural tocopherols rich in gamma-tocopherol plus tocotrienols, vitamin D3, CoQ10 specially formulated and natural carotenoids.

A.C. Grace Company
903-636-4368
www.acgrace.com



CD SMARTPEN

Finally, a medication dispenser that everyone will love – introducing The CD Smartpen. Patients will love how easy it is to use. Practitioners will love how precise and consistent dosing will become. No more accidental discharges from a syringe, no more wasted medication, no more struggling to decipher the lines and numbers on the side of a syringe. The CD Smartpen is precise, accurate, and easy to use for any cream-based medication including hormones, topical pain creams, and anti-aging creams. Tell your patients about the CD Smartpen. They will thank you for it.

Central Drugs Compounding Pharmacy
877-447-7077
www.auropharmaceuticalsinc.com

GI EFFECTS

The newest configuration of the GI Effects 2200 profile represents the best of molecular and culture-based gastrointestinal testing and includes an improved PCR assay for commensal bacteria. The comprehensive GI Effects test identifies the full-spectrum of gut microbiota and offers enhanced markers for inflammation including Eosinophil Protein X (which is associated with IgE food allergies, parasitic infections and Inflammatory Bowel Disease) and the FDA-cleared biomarker, Calprotectin, which can distinguish between Inflammatory Bowel Disease and Irritable Bowel Syndrome. The GI Effects upgrade enhances clinical utility and may eliminate the need for invasive medical interventions. Visit www.gdx.net for more information!

Genova Diagnostics
800-522-4762
www.gdx.net

GI *fx* GI Effects
Stool Profiles



REAL SCIENTIFIC HEMP OIL™ (RSHO™)

Hemp or “industrial hemp” has been used by people for thousands of years to make oils, fabric, rope and even food. This is why you see hemp products on retail shelves and websites. We are thrilled to announce that Real Scientific Hemp Oil™ (RSHO™), a multiple award-winning natural cannabidiol (CBD)-rich hemp oil nutritional supplement, is available online and in all 50 states. We combined the science of Mother Nature and the power of natural hemp to formulate the purest CBD-rich hemp oil concentrate in the world.

HempMeds
866-273-8502
www.hempmeds.com



ULTRAFLOA® WOMEN'S

UltraFlora® Women's is a unique blend of probiotics to help maintain healthy vaginal microflora and support urogenital health. This probiotic combination has been clinically shown to increase the number of beneficial Lactobacilli—important “friendly” bacteria. More than 20 years of laboratory research and 10 years of clinical evaluation support the safety and efficacy of this probiotic blend for women's health. Just one capsule daily taken orally provides a clinically effective dose.* * These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.

Metagenics, Inc.
800-692-9400
www.metagenics.com

CERENITY PM

Cerenity PM is a comprehensive formulation created for occasional sleeplessness. Cerenity PM promotes a healthy sleep cycle by naturally boosting levels of serotonin, GABA and melatonin using bioactive cofactors and amino acids; Cerenity PM includes 5-HTP, taurine, as well as a patented, naturally-sourced, form of GABA called PharmaGABA®. PharmaGABA® has been shown to reduce sleep latency while increasing time spent in a deep sleep. Phosphatidylserine is also included to address elevated evening cortisol levels that may be contributing to frequent waking. Cerenity PM is the perfect solution for patients requiring neurotransmitter and HPA axis support. For more information visit www.orthomolecularproducts.com.

Ortho Molecular Products, Inc.
800-332-2351
www.orthomolecularproducts.com



PRACASIL-PLUS

PCCA PracaSil™- Plus is a unique topical anhydrous silicone base that can be used alone or with various actives for potential use in formulations. Designed for scars and other skin conditions, PracaSil-Plus is an ideal choice for use on all types of scar tissue. It's infused with unique ingredients and technology, giving it potential healing power, emolliency and mild penetration. PracaSil-Plus may be used after surgery or an injury, with the hope of reducing inflammation and buildup of scar tissue, and it may be used on stretch marks. Drugs can be added to help with different types of pain/injury caused by scar tissue that has formed over a period of time.

PCCA
800-331-2498
www.pccarx.com

CARDIOMETABOLIC TESTING

SpectraCell Laboratories, primarily known for its functional nutritional testing, now offers a complete Cardiometabolic Panel to measure risk of heart disease and diabetes. The new panel, which includes SpectraCell's advanced Lipoprotein Particle Profile™, reports several clinically relevant biomarkers in three areas: (1) Glycemic control (2) Lipid Metabolism and (3) Vascular Inflammation. Each patient is given a pre-diabetic risk score ranging from 1 to 8 depending on their results. As a clinician, you can monitor both their specific biomarkers as well as their composite risk and treat accordingly. Assessing cardiometabolic function is the first step in treating it.

SpectraCell Laboratories
800-227-LABS (5227)
www.spectracell.com



TA-65 FOR SKIN

TA-65 for Skin Telomerase Complex rejuvenates the complexion with compounding effects of gentle exfoliation, nourishment, color balance and detoxification. The effective delivery of active ingredient provides rejuvenation effects in all layers of the skin. Dermatologically tested and scientifically based, TA-65 Skin Telomerase complex technology is proven to improve skin firmness, decrease skin redness, reduce fine lines and wrinkles, protect skin hydration and improve skin contrast.

T.A. Sciences
212-588-8805
www.tasciences.com



SLEEP BALANCE PROFILE

An estimated 70 million people in the U.S. have chronic sleep and wakefulness disorders. With numbers like these, it's surprising that the hormone connection to sleep is so often overlooked. Key hormones cortisol and melatonin rule our sleep-wake cycle, and restful slumber depends on them being in balance. The new Sleep Balance Profile features tests that help identify how these hormones are affecting a patient's sleeping patterns. It's the industry's first, four-point test offering a complete diurnal pattern of melatonin and cortisol to help patients with sleep disorders.

ZRT Laboratory, LLC
503-466-2445
www.zrtlab.com

MMI METABOLIC MEDICAL INSTITUTE

**Traditional Medicine is Evolving
Evolve with it!**

Who is MMI?

Metabolic Medical Institute is the leader in providing science-based medical education and preventive techniques in order to promote health and prevention of disease. Our educational courses are affiliated with leading universities and taught by Nobel-prize winning scientists, expert clinicians and researchers from a variety of medical, science, technology, and business disciplines.

**Educational
Partner**

**THE GEORGE
WASHINGTON
UNIVERSITY**
WASHINGTON, DC

**MMI can show you how
to effectively:**

- Increase your revenue stream
- Change the way you practice
- Learn new science-based skills
- Increase your patient base
- Earn your Graduate Certificate in Integrative Medicine

SecretropinRx

Visit www.SecretropinRx.com to read the study.



NOW no Artificial Flavoring



NEW Nanoliposomal delivery to maximize absorption

Amino Acid patented complex sold only by prescription or through a physician.

NEW Directions!

Initial Dose: Start with 4 sprays under the tongue at bedtime.

Based on IGF-1, IGF1BP-3, increase by 1 spray subsequent to lab results to optimal levels.

Buy **10** Bottles and get the **SPECIAL SHOW PRICE!***

Visit the **UCP Booth** for details

*Wholesale Only.

Available at
University Specialty Drugs
866-444-9475 ext.334

Susan Dolinger, Rpt
susand@ucprx.com

www.universityspecialtydrugs.com



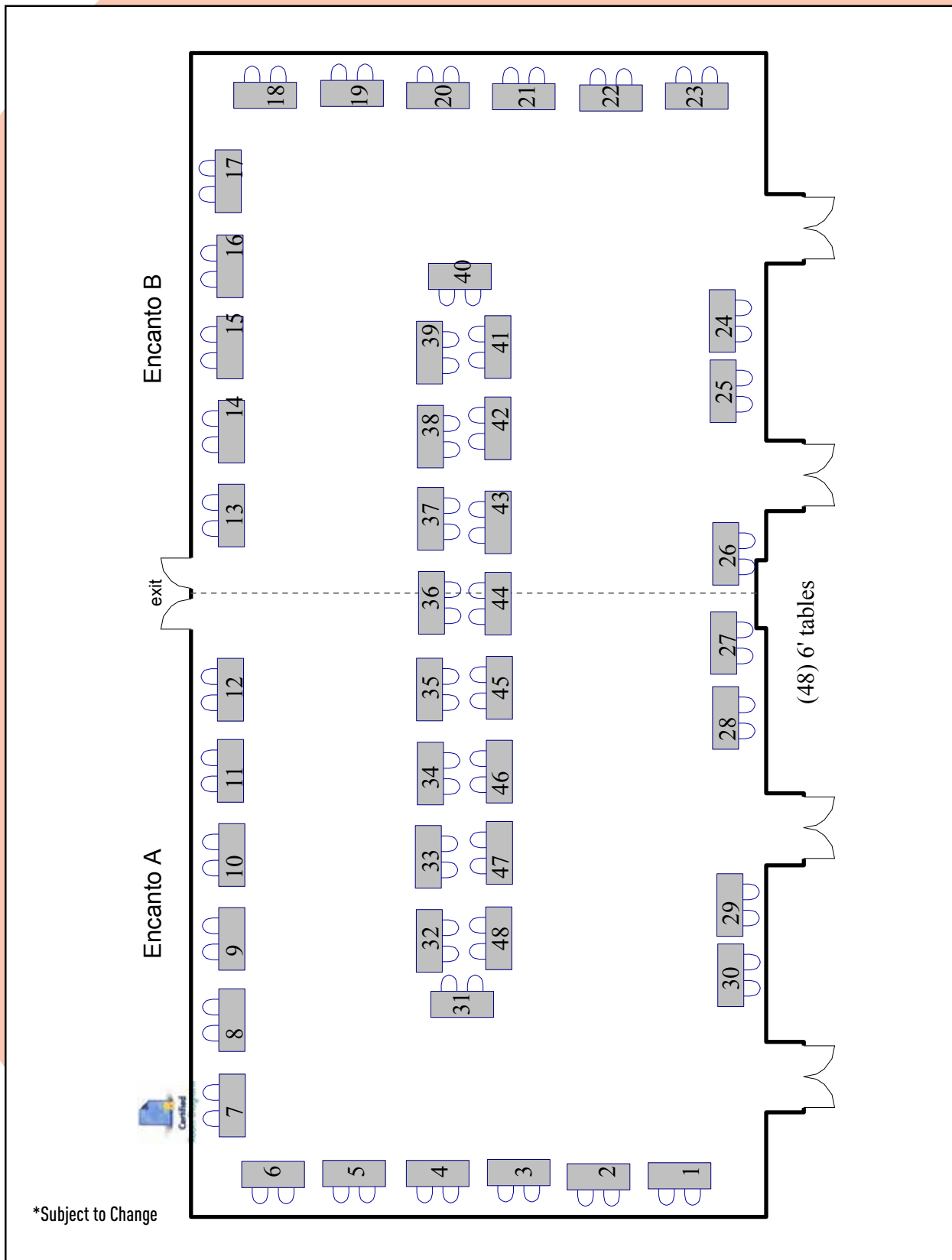
UNIVERSITY
SPECIALTY
DRUGS



THE FUTURE OF MEDICINE TODAY

ESTABLISHED 1992, A4M REPRESENTS 26,000 PHYSICIANS & SCIENTISTS FROM 120 COUNTRIES WORLDWIDE

EXHIBIT Floorplan



Symposium Exhibitor Index

EXHIBITOR	TABLE #
A.C. Grace	8
Access Medical Laboratories	36
AML Diagnostics	5
BodyLogicMD	47
Brown's Compounding Center	4
Central Drugs Compounding Pharmacy	13
Complementary Prescriptions	23
FreedomPracticeCoaching	34
Genova Diagnostics, Inc	25
Global Life Rejuvenation	9
Health Diagnostic Laboratory	27
HempMeds	41
ICA Health	3
Itamar Medical	18
Medaus Pharmacy	21
Meridian Valley Lab.	19
Metagenics, Inc.	17
Nature-Throid	24
NuMedica	37
Nutralogics	11
ONDAMED	1
Ortho Molecular Products, Inc.	32
PCCA	48
Physicians Lab	22
Power2Practice	Information Desk
Precision Analytical, Inc.	15
Rejuvenation Science	39
SpectraCell Laboratories	38
T.A. Sciences	28
Timeslip Solutions/ RG-Cell®Cosmeceuticals	16
University Compounding Pharmacy	42
WebToMed	12
ZRT Laboratory LLC	2

A.C. GRACE - Table 8

POBox 570, Big Sandy, TX 75755 USA
 Phone: 903-636-4368 • Fax: 903-636-4051
 Email: info@acgrace.com
 Website: www.acgrace.com

For over 50 years, A.C. Grace Company has been providing healthcare professionals in all disciplines of practice, their patients, and consumers worldwide, a line of PURE Multi-E products. Vitamin E is known for its benefits in supporting cardiovascular health, circulatory health, metabolic health, dermal health, and promoting healthy blood flow, healthy cholesterol levels, and so many other whole health issues. The company recently introduced UNIQUE OMEGA E+™ - developed by leading nutrition and medical experts in collaboration with the Hypertension Institute of Nashville.



ACCESS MEDICAL LABORATORIES - Table 36

5151 Corporate Way, Jupiter, FL 33458 USA
 Phone :866-720-8386
 Email: info@accessmedlab.com
 Website: www.accessmedlab.com

Access Medical Labs offers diagnostic solutions to fulfill the needs of your thriving practice. Using only the latest state-of-the-art instrumentation, we ensure quality, meaningful results along with our superior customer service to better serve you. Our wide variety of products range from esoteric testing, microbiology, advanced cardiac, salivary testing, tailored age management panels and much more. Access Test results in 24-48 hours. It's all about Access.



AML DIAGNOSTICS - Table 5

154 NW 16th Street, Boca Raton, FL 33432 USA
 Phone: 855-811-4810 • Fax: 561-999-1989
 Email: info@amldx.com
 Website: www.amldx.com

AML Diagnostics specializes in laboratory testing for physicians in Metabolic, Anti-Aging, Integrative, Functional & Complementary Medicine. We offer a large menu of hormone, metabolic & functional tests that can be performed through blood, urine & saliva testing. Additionally, we strive to offer the most unique & cutting edge tests available worldwide. Currently, in North America AMLDx is the only laboratory that offers the Life Length short telomere blood test and upcoming TK-1 cancer screening profile.



BODYLOGICMD - Table 47

Box 971051, Boca Raton, FL 33497
 Phone: 561-756-1038 • Fax: 855-275-7034
 Email: aroy@bodylogicmd.com
 Website: www.bodylogicmd.com

Your practice. Our solution. The future. BodyLogicMD is the nation's largest franchise of highly trained physician- owned practices specializing in bio-identical hormones integrated with customized fitness and nutrition programs. Find out more about our risk free guarantee.



BROWN'S COMPOUNDING CENTER - Table 4

13796 Compark Blvd. #100, Englewood, CO 80112 USA
 Phone: 303-805-9543 • Fax: 855-534-1047
 Email: info@brownscompounding.com
 Website: www.brownscompounding.com

Brown's Compounding Center is a leading compounding pharmacy, setting industry standards for safety, transparency & patient care. Customized medications are compounded in a 38,000 sq. ft lab with state-of-the-art equipment, processes & quality assurance techniques. Doctors and patients across the country turn to Brown's to address a wide variety of prescription needs, including hormone therapy, pain management, sports medicine, adrenal & thyroid dysfunction, dermatology, ophthalmology & many others.





CENTRAL DRUGS COMPOUNDING PHARMACY - Table 13

520 W. La Habra Blvd., La Habra, CA 90631 USA

Phone: 562-691-6754 • Fax: 562-694-3869

Email: info@centraldrugsrx.com

Website: www.centraldrugsrx.com

Central Drugs is an industry leading compounding pharmacy dedicated to helping prescribers create health for their patients. Through customized compound medications, rigorous quality standards, and expert customer service that puts you and your patients first, Central Drugs is the preferred choice for the prescribers committed to creating health one patient, one family, and one community at a time.



COMPLEMENTARY PRESCRIPTIONS - Table 23

4610 Arrowhead Dr., Carson City, NV 89706 USA

Phone: 888-303-4665 • Fax: 714-921-1639

Email: mail@cpmedical.net

Website: www.cpmedical.net

Complementary Prescriptions™, ProThera®, and Klair Labs® have merged to form a global, GMP certified manufacturer exclusively serving healthcare professionals. We offer 400+ high quality, innovative formulas. Private labeling/custom manufacturing also available.



FREEDOMPRACTICECOACHING - Table 34

1723 N. Loop 1604, San Antonio, TX 78258 USA

Phone: 210-417-4268 • Fax: 210-417-4261

Website: Freedompracticecoaching.com

Want to Find Out How You Can Enjoy A Practice That's Not Dependent On Insurance Reimbursements, And Start Turning Higher Monthly Profits Than You Ever Imagined? FPC is A Turnkey Coaching System That Dramatically Eases Your Learning Curve and Propels Your Practice to Higher Profits, Virtually Overnight!



GENOVA DIAGNOSTICS, INC - Table 25

63 Zillicoa St., Asheville, NC 28801 USA

Phone: 828-210-7362

Email: info@gdx.com

Website: www.gdx.net

Genova Diagnostics is a leading clinical laboratory applying systems-based testing approaches to the diagnosis, treatment and prevention of complex chronic diseases. Genova specializes in integrative clinical laboratory services with actionable information.



GLOBAL LIFE REJUVENATION - Table 9

161 E. Main St., Denville, NJ 07834 USA

Phone: 973-627-7888 • Fax: 973-627-4158

Email: dglaab@globalliferejuvenation.com

Website: www.globalliferejuvenation.com

Leader in Anti-Aging Medicine, medical weight loss, practice development and patient education. Creating a national physicians network. Marketing each location, educating patients and scheduling appointments, connecting doctors to patients and patients to state-of-the-art compounding pharmacies.

HEALTH DIAGNOSTIC LABORATORY, INC. - Table 27

737 N. 5th Street, Ste.103, Richmond, VA 23219 USA
 Phone: 877-443-5227 • Fax: 804-343-2704
 Email: clientservices@hdlabinc.com
 Website: www.myhdl.com

Health Diagnostic Laboratory, Inc. offers an advanced test to detect risk for heart disease, diabetes, and related diseases. HDL, Inc. provides a basis for personalized treatment, allowing physicians to better manage patients. Individuals receive an overview of their risks and counseling from Clinical Health Consultants to improve compliance and satisfaction.



HEMPMEDS - Table 41

4901 Morena Blvd., Ste.701, San Diego, CA 92117 USA
 Phone: 858-430-8376
 Email: info@hempmeds.com
 Website: www.hempmeds.com

HempMeds offers mainstream marketing, sales, customer service, and logistics for the cannabis industry. HempMeds is the largest CBD-rich hemp oil distributor in the U.S. and the only source of CBD-rich hemp oil that is currently available in all 50 states.



ICA HEALTH - Table 3

POBox 26021 Tucson, AZ 85726 USA
 Phone: 520-748-0388 • Fax: 520-514-1917
 Email: scott@icahealth.com
 Website: www.icahealth.com

Supplements and protocols designed by Dr. James L. Wilson for healthcare providers who want clinically effective results that address the source, not just symptoms, of stress, adrenal fatigue, blood sugar metabolism, digestive health and immune function.



MEDAUS PHARMACY - Table 21

6801 Cahaba Valley Road, Suite 116, Birmingham, AL 35244 USA
 Phone: 800-526-9183
 Website: www.medaus.com

With 80 years of combined compounding experience, our staff has established a reputation among physicians by providing medications and advice that make a difference in the lives of their patients. Specialties include: Bio-Identical Hormones, Thyroid Medications (including Sustained Release T-3), Injectable Glutathione, MIC Injections, Vitamin and Mineral Injections.



MERIDIAN VALLEY LAB - Table 19

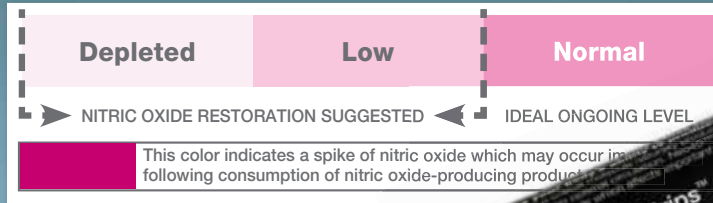
801 SW 16th St., Ste.126, Renton, WA 98057 USA
 Phone: 425-271-8689 • Fax: 206-209-4211
 Email: info@meridianvalleylab.com
 Website: www.meridianvalleylab.com

Meridian Valley is the world's leader and pioneer of 24-hr urine hormone testing and the first lab to offer the ELISA method for food allergy testing.



Are you testing Nitric Oxide levels?

Neogenis® Test Strips



FREE TESTING At Booth #23

The first and only **instant-read saliva test** for Nitric Oxide level.

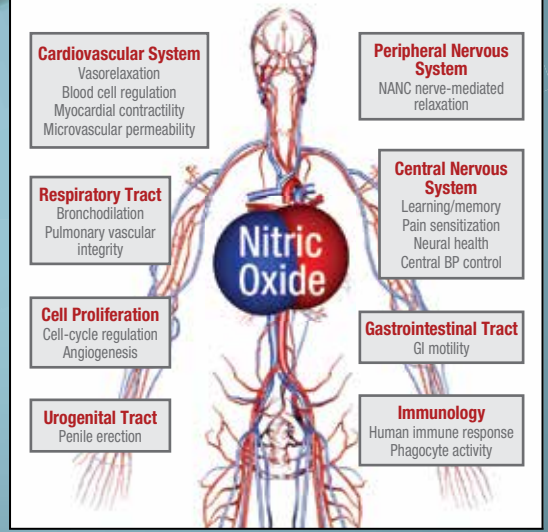
And Introducing...

Neo40® Daily



A breakthrough formula proven to help the body restore Nitric Oxide levels naturally, which can help maintain healthy blood pressure and overall cardiovascular health.

Nitric Oxide is critical for virtually every system in the body.



“The discovery of Nitric Oxide and its function is one of the most important in the history of cardiovascular medicine.”
– President of The American Heart Association, quoted in The New York Times

Meta-Cardio Formula

Meta-Cardio Formula combines robust ingredients to address the factors of metabolic syndrome.

- Support healthy blood lipid levels
- Support healthy blood sugar balance
- Support healthy blood pressure and body composition



NiacinX is an extended-release niacin tablet clinically researched for its ability to support healthy blood lipids.

- Proprietary technology that helps minimize niacin “flush”
- Easy-to-swallow 750 mg tablets allow for convenient twice-daily dosing



These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.



200+ Products — Ask About Our Non-Stocking Option
Order online at www.cpmedical.net Or call Customer Service at 888.401.0967



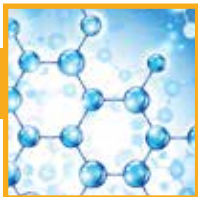
New! Expanded Test Menu



CardioMetabolic Risk

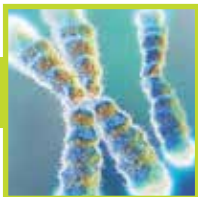
We now offer a complete CardioMetabolic Panel to measure risk of heart disease and diabetes. The new panel, which includes SpectraCell's advanced Lipoprotein Particle Profile™, reports several clinically relevant biomarkers in three areas: (1) Glycemic control (2) Lipid Metabolism and (3) Vascular Inflammation. Each patient is given a pre-diabetic risk score ranging from 1-8 depending on their results.

PreDiabetes Panel - This smaller panel includes insulin, glucose, hemoglobin A1c, c-peptide, adiponectin and SpectraCell's unique pre-diabetic risk score. It is comprised to identify metabolic abnormalities that may progress into diabetes. The risk score is a way to estimate the patient's risk of developing diabetes and associated complications such as heart disease or stroke.



Hormone Testing

Like nutrients, an imbalance of one hormone can initiate a cascade of events that alters other hormones, so a comprehensive look at hormone status is essential. Through SpectraCell, complete male and female hormone panels are now available. Both end-point steroid hormones as well as precursor hormones are included so the precise place of imbalance in the complicated hormonal cascade can be pinpointed. Several peptide hormones are also included as well as a complete thyroid panel, including thyroid antibody testing. Ordered with our micronutrient testing, you can truly get a baseline assessment of your patient's hormonal balance.



Factor V Leiden and Prothrombin Genotyping

Often used together, these results indicate whether a person has an increased likelihood of forming blood clots (thrombosis). Presence of either gene increases the chance of deep vein thrombosis, and may also provide useful information on heart attack risk.



Metagenics
Genetic Potential Through Nutrition

METAGENICS, INC. - Table 17

25 Enterprise, Ste. 200, Aliso Viejo, CA 92656 USA

Phone: 949-369-3375

Website: www.metagenics.com

Metagenics, headquartered in Aliso Viejo, CA, is a global life sciences company focused on reversing chronic illness and improving health. Founded in 1983, the company serves tens of thousands of healthcare providers and more than a million patients worldwide, and holds over 40 proprietary patents for use in nutraceuticals, medical foods, and pharmaceuticals. Metagenics' innovative program, FirstLine Therapy®, successfully integrates nutritional genomics, functional medicine, and lifestyle medicine to help healthcare providers find solutions to society's most pressing health concerns.



Nature-Throid
You, improved.

NATURE-THROID - Table 24

28248 N. Tatum Blvd., Ste. B1-629, Cave Creek, AZ 85331 USA

Phone: 877-797-7997 • Fax: 623-879-8683

Email: sales@rlclabs.com

Website: www.nature-throid.com

Nature-Throid® and WP Thyroid® are natural hypothyroid medications containing both T4 and T3 hormones. Two natural thyroid solutions. Because no two people are alike. RLC Labs also manufactures a-Drenal and i-Thyroid, (iodine 12.5mg & 6.25mg) which can be used alone or with either Nature-Throid or WP Thyroid® for a well-rounded thyroid protocol.



NuMEDICA
ACHIEVING PHYSIOLOGICAL BALANCE

NUMEDICA - Table 37

9503 E.55th Place. Tulsa, OK 74145 USA

Phone: 918-665-1151

Email: mail@numedica.com

Website: www.numedica.com

Our name, NuMedica, which literally means "new medicine," represents the underlying goal we constantly strive to achieve: provide the highest quality, cutting-edge nutrition and science-based, innovative formulas currently available. We recognize how vitally important it is for your patients to receive superior nutritional therapy while under your care. Therefore, our customers have come to rely on us to bring them unmatched quality, service and value. 'Achieving Physiological Balance' is the foundation premise from which we work. Our goal is to assist healthcare practitioners to help their patients achieve physiological balance, in essence, the greatest level of health and vitality possible.



NutraLogics
Supplement Fulfillment Solution

NUTRALOGICS - Table 11

5000 T-Rex Ave., Ste. 200, Boca Raton, FL 33431 USA

Phone: 561-972-9527

Email: msavage@nutralogics.com

Nutralogics provides a comprehensive turn-key supplement fulfillment solution for clinical practices to sell supplements seamlessly to their patients online, in office and recurrently through advanced "auto fulfillment" programs.



ONDAMED
a better way to make you better

ONDAMED - Table 1

2570 Route 9W, Cornwall, NY 12518 USA

Phone: 845-534-0456 • Fax: 845-534-0457

Email: support@ondamed.net

Website: www.ondamed.net

ONDAMED's unique Biofeedback System guides the practitioner to locate and stimulate hidden areas of physiological weaknesses, such as inflammation and diseased tissue. Identified areas are stimulated on a cellular level with focused fields inducing vector driven currents. The targeted therapy activates immune and lymphatic systems and metabolic processes. ONDAMED- The safe, non-invasive, more effective and better way to help your patients.

ORTHO MOLECULAR PRODUCTS, INC. - Table 32

129 E. Calhoun St., Woodstock, IL 60098 USA

Phone: 800-332-2351 • Fax: 800-476-4664

Email: contactus@ompimail.comWebsite: www.orthomolecularproducts.com

Ortho Molecular Products has been manufacturing dietary supplements with unsurpassed efficacy for 25 years. An indispensable partner to healthcare professionals, Ortho Molecular Products is an innovation leader, deeply committed to their long-standing pledge to honor the doctor-patient relationship. Ortho Molecular Products believes evidence-based, lifestyle and nutritional therapies will transform the practice of medicine.

**PCCA - Table 48**

9901 S. Wilcrest Dr., Houston, TX 77099 USA

Phone: 800-331-2498 • Fax: 800-874-5760

Email: coremarketing@pccarx.comWebsite: www.pccarx.com

PCCA helps pharmacists and prescribers create personalized medicine that makes a difference in patients' lives. We are the complete resource for the independent compounding pharmacist, providing the highest-quality products, education and support. While our members have access to over 4,560 active and non-active chemicals - more than any other compounding pharmacy supplier - the competitive advantage we bring our members is the industry's most comprehensive quality control and assurance program we bring to those chemicals every day.

**PHYSICIANS LAB - Table 22**

4950 Communications Ave., Boca Raton, FL 33431 USA

Phone: 561-414-8979 • Fax: 877-661-6178

Email: scovilova@physicianslab.comWebsite: www.physicianslab.com

Physicians Lab provides broad spectrum urine testing and analysis through state-of-the-art science to physicians focusing on preventative, functional, and regenerative medicine.

**POWER2PRACTICE - Information Desk**

150 S. York St., Ste. 215, Elmhurst, IL 60126 USA

Phone: 312-255-9763 • Fax: 312-878-7841

Email: info@power2practice.comWebsite: www.power2practice.com

Power2Practice is the first integrative medical platform that comprehensively addresses the unique clinical needs and business demands of the integrative medicine practice through a seamless practice management, EMR and business solution system. Integrative medical offices receive a core platform that actively engages patients in the health and wellness process. Features including medication ordering, billing, lab integration and automatic appointment confirmation all increase office efficiencies.

**PRECISION ANALYTICAL, INC. - Table 15**

3138 NE Rivergate, Ste.301C, McMinnville, OR 97128 USA

Phone: 503-687-2050 • Fax: 503-682-2052

Email: info@precisionhormones.comWebsite: www.precisionhormones.com

Advanced hormone testing. Our dried urine collection is the easiest collection method. The analysis combines the benefits of urine testing (comprehensive metabolite assessment) with the free cortisol pattern usually measured in saliva.



*Introducing the
Sleep Balance
Profile from
ZRT Laboratory*

The first, four-point test offering a complete diurnal pattern of melatonin and cortisol.

The most effective test for helping patients find answers to hormone-related sleep imbalances.



1.877.647.0324 | zrtlab.com

ZRT Laboratory has been innovating hormone testing since 1998. Trust the experts who have tested over 2 million people.





REJUVENATION SCIENCE - Table 39

811 N. Catalina Ave., Ste.3208, Redondo Beach, CA 90277 USA

Phone: 888-737-3588 • Fax: 310-374-9839

Email: info@rejuvenation-science.com

Website: www.rejuvenation-science.com

Sophisticated supplements for Anti-Aging and Regenerative Medicine practices with top-rated Maximum Vitality® multivitamin. Manage systematic inflammation, lipid, BP, and weight loss with Bio3ga™ krill oil, omega-3 fish oil, anti-oxidants and metabolic optimizer protocol for enhanced cardio, kidney and liver function with carnitine, ribose, CoQ10, ubiquinol. Advanced joint, vision GI support, and specialty products: Avemar, PsoriaGold.



SPECTRACELL LABORATORIES - Table 38

10401 Town Park Dr., Houston, TX 77072 USA

Phone: 800-227-5227 • Fax: 281-530-2431

Email: spec1@spectracell.com

Website: www.spectracell.com

SpectraCell Laboratories has become the nation's leader in functional nutritional analysis and cardiovascular risk assessment by utilizing the most advanced technology. SpectraCell has expanded its offering to include the only commercially available telomere test for your age management practice.



T.A. SCIENCES - Table 28

420 Lexington Ave., Suite 2900, New York, NY 10170 USA

Phone: 212-588-8805 • Fax: 866-697-5535

Email: info@tasciences.com

Website: www.tasciences.com

T.A. Sciences is a consumer health and wellness company dedicated to discovering and creating ground breaking products through telomerase activation. Based on the science of telomere biology, the company is solely focused on research-based solutions to rejuvenating the aging process at the cellular level.



TIMESLIP SOLUTIONS/ RG-CELL® COSMECEUTICALS - Table 16

623 9th Street, West Babylon, New York 11704 USA

Phone: 800-805-0207

Email: info@rg-cell.com

Website: www.rg-cell.com

TimeSlip RG-Cell® is a natural based, stem cell activating cosmeceutical line designed for clients who are concerned about age management and visibly reducing the signs of aging.



UNIVERSITY COMPOUNDING PHARMACY - Table 42

1875 3rd Ave., San Diego, CA 92101 USA

Phone: 800-985-8065 • Fax: 619-683-2008

Email: joe@ucprx.com

Website: www.ucprx.com

UCP compounds a wide variety of compounded medications used in the age management market. We deliver anywhere in the USA.



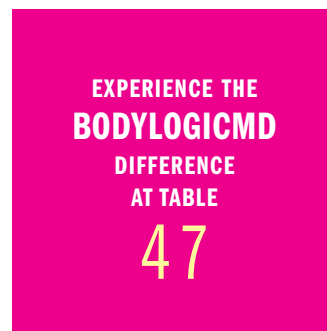
Join the most successful national franchise of bioidentical hormone physicians!

- ◆ Own a bodylogicmd franchise
- ◆ Join an existing physician-owned franchise
- ◆ Specialize in bioidentical hormone therapy
- ◆ Comprehensive practice solution
- ◆ Proven market leaders
- ◆ Do what you do best, see patients



Learn more.

Come visit us in Phoenix at table 47!



bodylogicmd[®]
Hormone Therapy | Fitness | Nutrition

join.bodylogicmd.com

WEBTOMED - Table 12

2700 S. River Rd., Ste.100, Des Plaines, IL 60018 USA

Phone: 866-999-8550 • Fax: 773-913-6478

Email: info@webtomed.comWebsite: www.webtomed.com

WebToMed specializes in medical website design, e-Commerce, and internet marketing. We help anti-aging professionals, physicians, clinics, medical spas, labs and pharmacies market their services and sell their products online.

**ZRT LABORATORY LLC - Table 2**

8605 SW Creekside Pl., Beaverton, OR 97008 USA

Phone: 503-466-2445 • Fax: 503-466-1636

Email: info@zrtlab.comWebsite: www.zrtlab.com

ZRT has been innovating hormone testing since its founding in 1998. ZRT first developed the methodology that made saliva hormone testing commercially viable, and also developed the science for measuring hormones in both dried blood spot and dried urine. We are one of the few laboratories capable of testing across three methodologies - which means ZRT tests in the most appropriate medium, not just the most accurate.



JOIN A4M TODAY!

Enjoy the exclusive benefits that come with being an A4M member!

- Framed Membership Certificate
- Discounts on Conferences & Education
- Directory listing on A4M.com
- Quarterly E-Newsletter
- Medical Legal Defense Program
- Access to an A4M Educational Advisor

A4M Educational Advisors guide the practitioner through their A4M education, discussing event opportunities and options to become Board Certified and Fellowship trained.

JOIN ONLINE OR CALL YOUR A4M EDUCATIONAL ADVISOR TODAY!

CHEMICALLY TREATED CORNSTARCH ALLERGENS

IS THAT WHAT MOTHER NATURE INTENDED?

GET REAL.

Not all thyroid medications are created equal. Nature-Throid® and WP Thyroid® – our newest thyroid medication with only two all-natural inactive ingredients – give you two natural treatment options, both with a proven record of hormone stability. Learn how we took the best of Nature-Throid®'s hypoallergenic formula and created WP Thyroid®, the purest treatment option. Visit GetRealThyroid.com.



GetRealThyroid.com



THE FUTURE OF MEDICINE TODAY

ESTABLISHED 1992, A4M REPRESENTS 26,000 PHYSICIANS & SCIENTISTS FROM 120 COUNTRIES WORLDWIDE

ADVERTISER	WEBSITE	PAGE #
AML Diagnostics	www.amldx.com . . . . .	.15
BodyLogicMD	www.bodylogicmd.com . . . . .	.61
Complementary Prescriptions	www.cpmedical.net . . . . .	.55
Genova Diagnostics.	www.gdx.net . . . . .	.35
Health Diagnostc Laboratory, Inc.	www.myhdl.com . . . . .	.20
HempMeds	www.hempmeds.com . . . . .	.39
Medaus Pharmacy	www.medaus.com . . . . .	.27
Nature-Throid	www.nature-throid.com . . . . .	.41, 63
Ortho Molecular Products	www.orthomolecularproducts.com . . . . .	.13
PCCA	www.pccarx.com . . . . .	.17
SpectraCell Laboratories	www.spectracell.com . . . . .	.56
T.A. Sciences	www.tasciences.com . . . . .	.25, 43
University Compounding Pharmacy	www.ucprx.com	8, 49
ZRT Laboratory, LLC.	www.zrtlab.com . . . . .	.59

BIO-IDENTICAL HORMONE REPLACEMENT SYMPOSIUM



Bio-identical Hormone Society

Joint
Providership



FEBRUARY 25-28, 2015 • LOS ANGELES, CA

This course includes a hard copy and electronic version of a

500+ PAGE SYLLABUS

of scientific medical evidence for reference



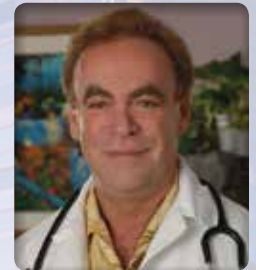
JONATHAN V. WRIGHT, MD
Founder of BHRT



THIERRY HERTOGHE, MD
Hormone Therapies Expert



PAMELA SMITH, MD
A4M Fellowship Director



RON ROTHENBERG, MD
Anti-Aging Specialist

EARLY BIRD SPECIAL

\$799 | Add a **STAFF MEMBER**
until January 10, 2015* | **for ONLY \$695**

*After 1/10/2015, registration is \$999. \$1,299 on-site.
A \$100 non-refundable processing fee applies to all cancellations.



JW MARRIOTT.
HOTELS & RESORTS

900 West Olympic Blvd,
Los Angeles, CA 90015

\$239/night
Reserve Rooms by **2.6.2015**

For Hotel Reservations
Call **888-832-9136**



Call 1-800-228-9290 or visit www.A4M.com for more information