



Anti-Aging Therapeutics Volume XIII

Contents & Article Summaries

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1	<p>New European Perspectives on the Treatment of Adrenal Fatigue and Chronic Fatigue Syndrome <i>Reimar Banis, M.D.*</i></p> <p>Adrenal fatigue and chronic fatigue are one of the most common reasons for doctor visits to naturopathically-oriented general-medicine practices. I would like to report on my many years of practical experience, and in so doing describe an energy medicine method which I developed, namely Psychosomatic Energetics, with the aid of which it is very often possible to treat chronic fatigue successfully.</p>	1
2	<p>Advances in Cancer Imaging: Diagnosing, Treating and Reversing Prostate and Other Cancers with Non-Invasive Monitoring and Nutritional Intervention <i>Robert L. Bard, M.D.**; Arthur W. Bartunek, MA**</i></p> <p>A primary goal in prostate and other cancers is to identify aggressive cancers that can kill, as opposed to cancers that do not threaten life, and may not even show any symptoms. The current, widely-used diagnostic techniques make this identification extremely elusive. The technology to achieve this diagnostic distinction should be noninvasive, and provide measures that can be easily and accurately compared to previous exams, making it easy to track changes. At the same time, it should provide a systematic approach to monitoring the patient's response to therapeutic intervention. In this way the diagnosis, monitoring and treatment can be tailored to each individual's circumstances and responsiveness. With recent advances in the technology of Doppler ultrasound and MRI, these goals can and are being achieved. Now, advances in the computerization of the imaging, blood flow, and tumor measures of exact size and density, provide for an accurate and repeatable diagnosis, and a means to follow the individual's unique pattern of cancer development, progress, and response to treatment. In this paper, the noninvasive diagnostic tracking of a patient's progress is presented, along with a naturopathic nutritional approach, the Beta-Sitosterol/Antioxidant Matrix (B-Sit/AOX), which provides vital support for cell function and membrane integrity.</p>	5

3	<p>Is Resveratrol a True Anti-Aging Compound? <i>Richard A. Baxter, M.D., FACS**</i> As anti-aging science has progressed on both a molecular and clinical basis, resveratrol, a naturally occurring polyphenol antioxidant, has emerged as a candidate for comprehensive therapy. Laboratory evidence indicates that resveratrol protects skin against the effects of photoaging, and counters age-related diseases via protection against ischemia-reperfusion injury, Alzheimer’s disease, cancer, and diabetes. Resveratrol is a potent phytoestrogen and has potential related benefits and risks. Resveratrol has become a popular supplement in large part due to reports that it is a sirtuin activator, thereby acting as a caloric restriction mimetic and prolonging lifespan. However, questions about the bioavailability of resveratrol remain, clinical evidence is scant, and recent research indicates that resveratrol is not a direct sirtuin activator and does not extend lifespan in mammals. These controversies and the potential clinical role for resveratrol are reviewed.</p>	21
4	<p>Your DNA is Not Your Destiny: Behavioral Epigenetics and the Role of Emotions in Health <i>Dawson Church, Ph.D., CEHP*</i> In a series of studies published in 2000 and later, researchers began to demonstrate the importance of epigenetic influences on gene expression. Genes might be silenced through methylation, or their expression facilitated by acetylation. A further step occurred when behaviors and psychological states were noted to regulate the activity of genes. A body of evidence has now been accumulated that assesses the specific genes affected by behavioral influences such as nurturing, by lifestyle interventions such as meditation, by emotions, and by alleviating psychological conditions such as depression, anxiety and post-traumatic stress disorder (PTSD). Comparisons of the relative lengths of telomeres in identical twins, who start life with identical genes, show that emotional stress can result in one twin having a cellular age that is as much as 10 years older by age 40. New studies in the field of energy psychology also indicate that these psychological and emotional stressors may be remediated much more rapidly than previously believed possible, and that behavioral and psychological influences regulate the genes responsible for inflammation, immune function, and cellular regeneration, among others. These advances provide fruitful new avenues for research into the epigenetic properties of simple behavioral and emotional skills such as meditation, the Relaxation Response, and Emotional Freedom Techniques (EFT), and point to the potential of these methods as potent anti-aging and medical interventions.</p>	35
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10	<p>The Hypothalamic-Pituitary-Adrenal Axis: The Actions of the Central Nervous System and Potential Biomarkers <i>Kelly L. Olson, Ph.D.*; David T. Marc, B.S.; Lindsay A. Grude, B.S.; Corena J. McManus, M.S.; Gottfried H. Kellermann, Ph.D.</i></p> <p>The adrenal glands are part of an adaptive system involved in the maintenance of a homeostatic biological balance in response to stress. The adrenal glands release cortisol, epinephrine, and norepinephrine to preserve a healthy, but dynamic equilibrium. Specific brain nuclei control adrenal gland function either through the actions of the hypothalamic-pituitary-adrenal (HPA) axis, initiated by traditional HPA drivers like corticotrophin releasing factor (CRF) from the hypothalamus, or through direct innervation by stimulated preganglionic sympathetic nerves. These pathways can be activated by physical or emotional stressors as well as inflammatory processes which can activate adrenal activity through the signaling of various cytokines. The continuum of hyperstimulation of the HPA axis from an acute insult to a chronic saturation of the system is led by varying degrees of adrenal collapse eventually giving way to adrenal fatigue. The functionality of the HPA axis can be evaluated with peripheral biomarkers such as urinary epinephrine and norepinephrine and salivary cortisol. These HPA biomarkers help practitioners identify contributing factors to various clinical conditions and provide insight into potential intervention points. By understanding the pathways that can lead to altered HPA axis activity and by using biomarkers to assess HPA functionality, health care practitioners can make more informed clinical decisions to enhance patient care.</p>	91
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* Denotes speaker at Spring 2010 Session of the Annual World Congress on Anti-Aging Medicine & Regenerative Biomedical Technologies;

** Denotes speaker at Winter 2010 Session.