



# Anti-Aging Therapeutics Volume VIII

## Contents & Article Summaries

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1	<p><b>Anti-Aging Medicine: Present and Future Developments</b> <i>Ronald Klatz, M.D., D.O.</i></p> <p>For the last 14 years, I have been talking about the future of healthcare, and the next generation of healthcare. Well not any more. We have state of the art healthcare right here and now. And this is not something that is just for far-forward pioneers. This is for practicing clinicians who want to be at the top of their field. We have now reached the cusp of immortality. We are on a cusp of technology, which will take us to life spans of 100 years of age and beyond. And perhaps very far beyond, because old age simply is not what it used to be. This paper will consider these technologies and future technologies.</p>	1
2	<p><b>Palladium Lipoic Complex: "Energy to Get the Job Done"</b> <i>Frank Antonawich, Ph.D.**</i></p> <p>Cellular energy is synonymous with metabolic power. As we age, there is a decrease in metabolism; furthermore, numerous disease states involve metabolic dysfunction (i.e. ischemia/stroke, cancer). The major power plant of the cell is the mitochondria, which utilize high-energy intermediates (namely NADH and FADH) to donate electrons and drive the production of ATP, our functional energy source. The aim of this paper is to address the question: can we alter metabolic fitness by providing an alternative electron source?</p>	5
3	<p><b>Reward Deficiency Syndrome (RDS): Neurogenetic Aspects of Aging and Related Behavioral Disorders Specific to Dopaminergic Pathways</b> <i>Kenneth Blum, Ph.D., Thomas J.K. Chen Ph.D., Seth H. Blum, B.A., David E. Comings M.D., Julie F. Mengucci, R.N., Brian Meshkin. B.Sc., Bernard W. Downs, BBA, Eric R. Braverman, M.D.</i></p> <p>The purpose of this report is to provide scientific validation related to the genetic aspects of Reward Deficiency Syndrome (RDS) and associated behavioral disorders. Our approach here is to outline the role of dopaminergic pathways in RDS related behaviors and to point out that aging may have certain negative consequences related to impaired functionality, and understanding these pathways may lead to important preventive and treatment targets. We will attempt to show the genetic elements that may effect expression of certain cognitive impairment based on neurotransmitter deficiencies as seen with individuals faced with RDS. This group may be at a higher risk for dementia in later life. This hypothesis may provide a paradigm shift in the prevention and treatment of aging, in particular brain function and resultant behavior. Our overall goal is to show that these dopaminergic genes may have impact on the biology of humans and could affect one's behavior from birth to death.</p>	9

4	<p><b>The Use of Photodynamic Therapy in Dermatology</b>  <i>Martin Braun, M.D.*</i></p> <p>The purpose of this paper is to show how photodynamic therapy (PDT) with topical 5-aminolevulinic acid (ALA) has evolved as a simple, wide-spectrum alternative for the treatment of aging skin. The technique has also proven useful in the treatment of superficial cancerous and pre-cancerous conditions. Physicians acquainted with PDT can provide up-to-date treatments with minimal patient downtime, and provide an excellent cosmetic outcome. Furthermore, PDT is a modality that can be repeated with existing PL devices already available in most cosmetic clinics. This is critical for the AK patient because once one is diagnosed as an AK patient, one is forever an AK patient as the pre-cancerous lesions continue to appear with age. Furthermore, photoaging only stops once you stop aging! Hypopigmentation and scarring have not been described with short incubation PDT.</p>	27
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16	<p><b>Female Sexual Healing and Longevity</b>  <i>Nick Delgado, Ph.D., CHT***</i>                      A sign of the start of premature aging in women is sexual decline. A loss of sexual desire or arousal is a significant biomarker that must be treated to improve the quality of life. Feelings of love also contribute to the stimulation of hormones and neurotransmitters that contribute to longevity. This paper will introduce a four-step treatment plan that can help to restore longevity, love, intimacy, and quality of life.</p>	133
17	<p><b>Beating "Boomeritis" – The FrameWork Solution</b>  <i>Nicholas DiNubile, M.D.***</i>                      One of the aims of this paper is to change people's way of thinking about the musculoskeletal system. Anti-aging is about longevity, it is about hormones, the skin, the heart, and the brain, but very little emphasis is ever placed on the frame, and given its importance it is about time that people considered it a little more often, and in a different way. We have had added more years to the human lifespan in the past 100 years than in the history of mankind, and that is where the mismatch occurs. It is an issue of longevity, which we are achieving, versus durability, which we are not. Evolution is not fast enough. Evolution does not work quickly enough to reinvent the musculoskeletal system in just 100 years. So, we have a major mismatch, and I believe we have outlived the warranty on our frame. This is the reason that musculoskeletal ailments are on the rise, across all age groups, and, in recent years have surpassed the common cold as the number one reason for physician office visits in the USA. Thus, the key question is now: How do you extend the warranty on your frame? And that is the other aim of this paper.</p>	139
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31	<p><b>Omega-3 Polyunsaturated Fatty Acids: What You Need to Know to Save Your (and Your Patient's) Life</b>  <i>Ron Rothenberg, M.D.*</i></p> <p>There is more documentation in the medical literature on the benefits of supplementation with long chain omega-3 polyunsaturated fatty acids (omega-3's) than any other nutraceutical. This paper will review the nomenclature, biosynthesis, and food sources of omega-3. The biochemistry of the powerful anti-inflammatory effects of omega-3 will be explained, and the powerful data on omega-3's and cardiovascular risks, cancer, depression, and cognitive function will be discussed. Omega-3 supplements will be analyzed and assessed for the concept of pharmaceutical grade and contaminants such as mercury and PCB's. Optimal doses for wellness and medical conditions will be considered, as will lab testing to assess omega-3 and omega-6 status.</p>	251
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34	<p><b>Optimal Thyroid Replacement</b>  <i>Neal Rouzier, M.D.***</i></p> <p>Thyroid hormone is the one of the most important hormones in the body, however most of us ignore it, which is very unfortunate. We optimize all of our other hormones, and we optimize the vitamins and supplements that we take, so it only makes sense to optimize the hormone that effects metabolism, energy, and temperature. The aim of this paper is to discuss thyroid hypofunction and optimal thyroid replacement therapy.</p>	275
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37	<p><b>Hormone Replacement Therapy (HRT) – The Answer</b>  <i>Pamela Smith, M.D., M.P.H.</i> ***                  The menopause hormone response is as unique to an individual as their fingerprint. Hormone replacement therapy (HRT) should not be done without a thorough understanding of all the hormones in the body. Hormones really are a symphony, and in a symphony everything needs to be playing in tune. If you have one hormone that is not playing in tune, then your patient will not have a good response. This paper will discuss the functions, symptoms of hormone deficiency, and symptoms of hormone excess, associated with: estrogen, progesterone, testosterone, DHEA, cortisol, insulin, pregnenolone, and thyroid hormone.</p>	301
38	<p><b>Clinical Applications &amp; New Technology of Saliva Hormone Testing for Anti-Aging</b>  <i>Paul Ling Tai, D.P.M.</i> **                  In the quest for hormone rejuvenating programs, one of the most important first steps is the vital evaluation of each individual's hormone status with hormone testing technology. It requires a direct testing and measurement of each of the essential sex hormones, which affect aging. Blood serum hormone testing is by far the most common technique practiced by most mainstream physicians in the United States. Careful analysis reveals that serum hormone testing has a number of complications that make it much more difficult to implement and use. Saliva hormone testing is a relatively new technology by comparison, however, by comparison, it is more limited in its acceptance and usage. Technological developments in saliva hormone testing, namely the Luminescence Immunoassay (LIA) and the Liposome Active Delivery System, mean that saliva hormone testing is more sensitive and accurate than ever before. This paper will discuss saliva hormone testing and its clinical applications.</p>	313
39	<p><b>Powerfully Effective Pain Management Using Comprehensive Medicine</b>  <i>Jacob Teitelbaum, M.D.</i> ***                  The aim of this paper is to discuss how to evaluate and effectively treat fibromyalgia, myofascial pain, migraines, disc disease, arthritis, neuropathies, gastrointestinal problems, osteoporosis, and other pains with or without prescriptions – and without burning out. Pain is the "red flashing warning light" on your body's dashboard telling you that something desperately needs attention. Vioxx and NSAIDs are like putting a band-aid over a flashing oil light, and they have equally dangerous consequences! Research will be presented showing a dramatic decrease in pain (P. &lt; .0001 versus placebo) by treating the problems that the pain is trying to draw your attention to. We call this our "SHIN" Protocol for pain, which stands for: Sleep, Hormonal deficiencies, Infections/Inflammation/Impingement, and Nutritional support. This approach also dramatically improves the patient's energy as well, showing a 91% improvement versus placebo in chronic fatigue syndrome (CFS) patients. In addition, research proven, highly effective therapies tailored to each kind of pain will be presented. This is a very clinically oriented paper, which will allow you to effectively treat pain in your practice immediately.</p>	325
40	<p><b>The Role of Sugar and Honey in Wound Healing</b>  <i>Julian Whitaker, M.D.</i> ***                  This paper is concerned with the use of sugar and honey to treat open wounds. The benefits of using sugar to treat open wounds, particularly diabetic wounds, will be discussed, as will the mechanism of action. A protocol for the use of sugar to treat diabetic wounds will be provided.</p>	341



<b>ANTI-AGING CLINICAL PROTOCOLS, 2006-2007</b>		
1	<p>Treatment of Photoaged Skin by Photodynamic Therapy  <i>Martin Braun, M.D.*</i></p> <p>Anti-aging physicians have an unprecedented variety of options for the treatment of the pigmentary changes, telangiectasias, fine wrinkles, rough skin texture and actinic keratoses (AKs) associated with photoaging. Pulsed light (PL) is available to eradicate brown spots (lentigines) or telangiectasias in a process known as photorejuvenation. If actinic keratosis (AK) lesions are also present, photodynamic therapy (PDT) with topical 5-aminolevulinic acid (ALA trade name Levulan® Kerastick®, Dusa Pharmaceuticals) with activation by PL not only removes AKs, but enhances the cosmetic outcome obtained with PL alone by improving skin texture. The overall process is called photodynamic photorejuvenation or photodynamic therapy (PDT).</p>	343
2	<p>Treatment Protocol for Quickly Evaluating Pain and Determining How to Treat It  <i>Jacob Teitelbaum, M.D.***</i></p> <p>Treatment recommendations for neuropathic pain; fibromyalgia and myofascial pain syndrome; arthritis; inflammatory pain; osteoporosis and bone pain/fractures; cancer pain; headaches; migraine headaches; back pain; indigestion; spastic colon; non-cardiac chest pain; pelvic pain; wrist, hand, shoulder, leg and foot pain.</p>	347

\* Denotes speaker at Spring 2005 Session of the Annual International Congress on Anti-Aging Medicine;  
 \*\* Denotes speaker at Summer 2005 Session;  
 \*\*\* Denotes speaker at Winter 2005 Session.