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FREEDOM

ELITE ACADEMY | JAN 29-31 2015
SAN ANTONIO 







Best
Future
You





DEADLY ANTIOXIDANTS

Why Your Daily Vitamins May Be Causing Cancer and
Shortening Your Life and How Nrf2 Can Turn on Your
Body's Own Antioxidants for Optimal Health

SHAWN TALBOTT, PH.D.



 LifeVantage | ELITE ACADEMY

BROCHURE COMBO PACK



25 - The Cancer Breakthrough
25 - The Nervous System Breakthrough
25 - The Cardiovascular Breakthrough
25 - The Skin Health Breakthrough
25 - The Canine Breakthrough

ELITE ACADEMY | JAN 29-31 2015
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LifeVantage Sports Science Lab @ RSL



- Gather data
- Customize training
- Monitor progress
- Optimize performance
- Protandim
- Wicked Fast (pre/post)
- Axio



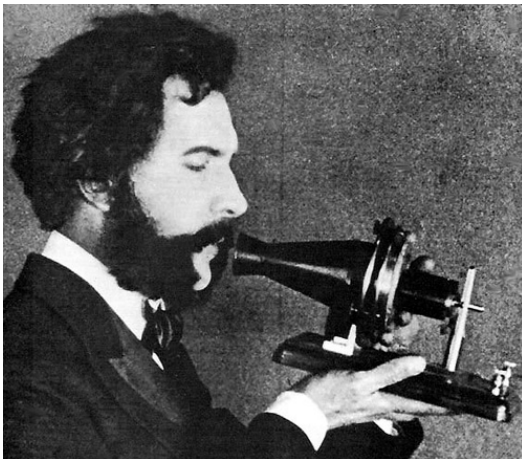
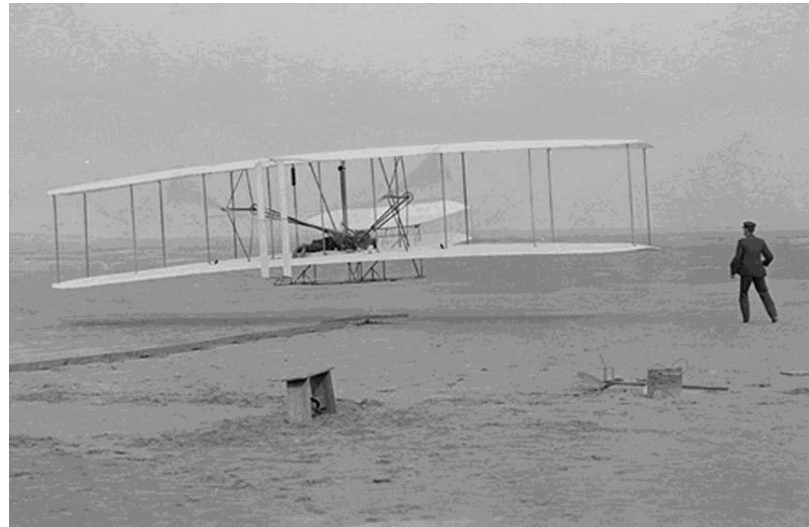
Contents Tested & Certified
www.nsf.org



LifeVantage Lab Series



- NEW Episode 1
 - Product Overview w/Axio
- NEW Webinars
 - Bi-monthly science topics
 - March 4



Stress / Balance is Hot

TEDxSandy – April 2014

The 431 Project – Sept 2014

ACLM – Oct 2014

A4M – Dec 2014

Biochemical Society – Jan 2015

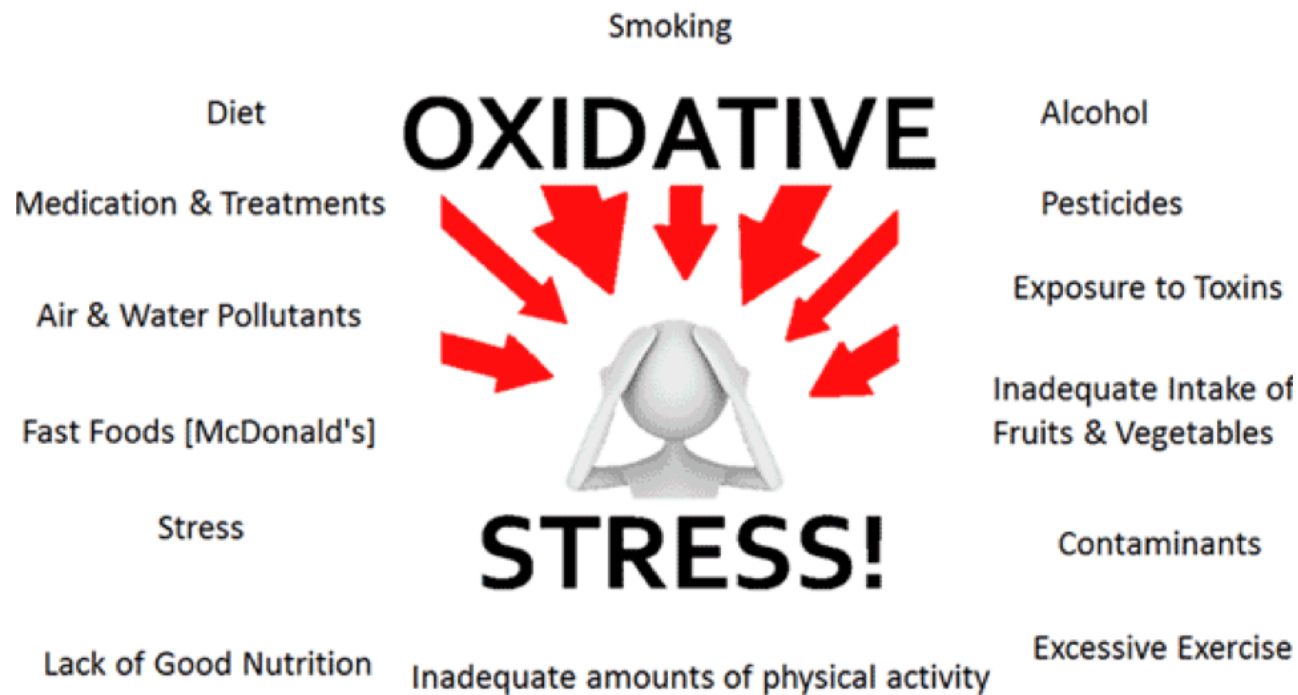
Experimental Biology – March 2015

Philippine Heart Association – May 2015

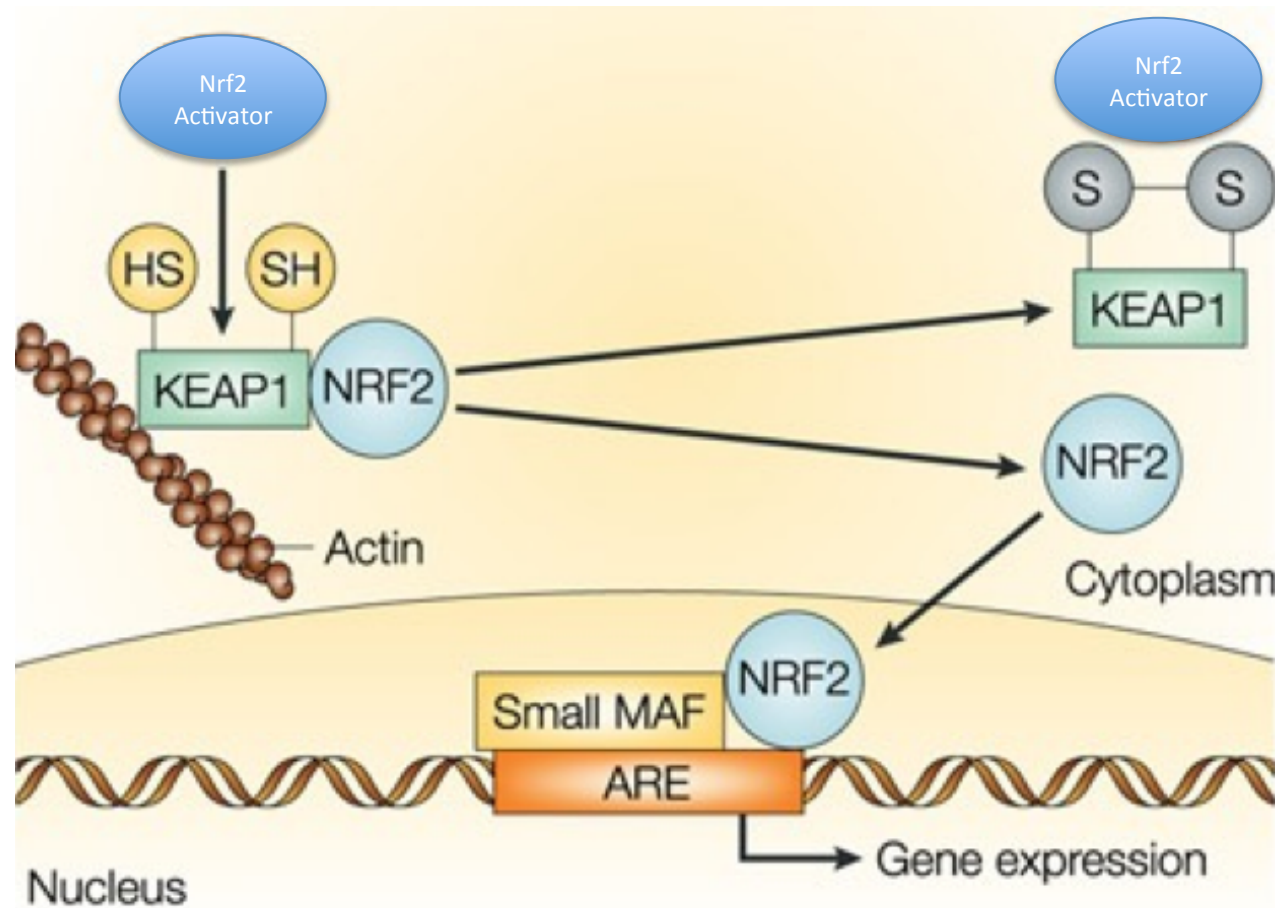
NIH Healthy Aging Summit – July 2015

www.ShawnTalbott.com

Causes of Oxidative Stress



Just about everything we do results in oxidation (or inflammation) producing potentially damaging free radicals!



Don't *Take* Antioxidants
Make Antioxidants!

Chronic Pulmonary Artery Pressure Elevation Is Insufficient to Explain Right Heart Failure

Harm J. Boer, MD, PhD^a; Ramesh Natarajan, PhD^a; Scott C. Henderson, PhD^a

Carlin

Free Radical Biology & Medicine 50 (2011) 700–709

Background—function, in of data on Methods and handling, in angioplasty hypertrophy that was as endothelial factor, in 1 (Protandim). Conclusion—hypertension



Contents lists available at ScienceDirect

Free Radical Biology & Medicine

journal homepage: www.elsevier.com/locate/freerad

Original Contribution

Protandim attenuates intimal hyperplasia in human saphenous v ex vivo via a catalase-dependent pathway

Binata Jodhar^{a,b,c}, Rashmeet K. Reen^{b,d}, Michael S. Firstenberg^c, Saradhadevi Varadl Jay L. Zweier^b, Keith J. Gooch^{a,b,*}

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Scavenging enzymes
Catalase
Human saphenous veins
Ex vivo culture
Protandim

ABSTRACT

Human saphenous veins (HSVs) are widely used for bypass grafts des patency. To evaluate the role of reactive oxygen species (ROS) signaling, stage pathology of vein-graft disease, and to explore the potential th endogenous antio model of HSV. Prot and catalase activity by and proliferation, l cultured HSV and

OPEN ACCESS Freely available online

The Chemopreventive Effects of Protandim: Modulation of p53 Mitochondrial Translocation and Apoptosis during Skin Carcinogenesis

Delira Robbins^a, Xin Gu^a, Runhua Shi^a, Jianfeng Liu^a, Fei Wang^a, Jacquelyne Ponville^a, Joe M. McCord^a, Yunfeng Zhao^{a,*}

^a Department of Pharmacology, Toxicology and Neuroscience, Louisiana State University Health Sciences Center, Shreveport, Louisiana, United States of America, ^b Department of Pathology, Louisiana State University Health Sciences Center, Shreveport, Louisiana, United States of America, ^c College of Life Science, Jilin University, Changchun, Jilin Province, China, ^d Department of Chemistry, Nicholls State University, Thibodaux, Louisiana, United States of America, ^e Department of Medicine, University of Colorado at Denver and Health Sciences Center, Aurora, Colorado, United States of America, ^f Fife-Weiler Cancer Center, Louisiana State University Health Sciences Center, Shreveport, Louisiana, United States of America

Abstract

Protandim, a well defined dietary combination of 5 well-established medicinal plants, is known to induce endogenous antioxidant enzymes, such as manganese superoxide dismutase (MnSOD). Our previous studies have shown that the induction of various antioxidant enzymes, products of oxidative damage can be decreased. In addition, we have shown that tumor multiplicity and incidence can be decreased through the dietary administration of Protandim in the two-stage skin carcinogenesis mouse model. It has been demonstrated that cell proliferation is accompanied by cell death during DMBA/TPA treatment in the two-stage skin carcinogenesis model. Therefore, we investigated the effects of the Protandim diet on apoptosis and proposed a novel mechanism of chemoprevention utilized by the Protandim dietary combination. Interestingly, Protandim suppressed DMBA/TPA induced cutaneous apoptosis. Recently, more attention has been focused on transcription-independent mechanisms of the tumor suppressor, p53, that mediate apoptosis. It is known that cytoplasmic p53 rapidly translocates to the mitochondria in response to pro-apoptotic stress. Our results showed that Protandim suppressed the mitochondrial translocation of p53 and mitochondrial outer membrane proteins such as Bax. We examined the levels of p53 and MnSOD expression/activity in murine skin JB6 promotion sensitive (P+) and promotion-resistant (P-) epidermal cells. Interestingly, p53 was induced only in P+ cells, not P- cells, whereas MnSOD is highly expressed in P- cells when compared to P+ cells. In addition, wild-type p53 was transfected into JB6 P- cells. We found that the introduction of wild-type p53 promoted transformation in JB6 P- cells. Our results suggest that suppression of p53 and induction of MnSOD may play an important role in the tumor suppressive activity of Protandim.



US007241

(12) United States Patent
Myhill et al.

(10) Patent No.:
(45) Date of Patent:

(54) COMPOSITIONS FOR ALLEVIATING INFLAMMATION AND OXIDATIVE STRESS IN A MAMMAL

(75) Inventors: Paul R. Myhill, Castle Rock, CO (US); William J. Driscoll, Englewood, CO (US)

(73) Assignee: LifeLine Nutraceuicals Corporation, Englewood, CO (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35

Al-Shaar, "C-Reactive Protein and 2006, vol. 291, No. 23, pp. 2818–2. Anderson, et al., "Differential Resp Cells to Induction of Apoptosis by V H. Angiogenesis, 10:15A," *Cancer Res.*, Baker, et al., "Reduced RBC Vers Due to Endothelial," *Circul. Abduct.*, Barboza, et al., "Decreased Oxidativ alive Collin Supplemented with Fi row, 2003, vol. 10, pp. 837–842. Bhattacharya, et al., "Antioxidant 236–239.

OPEN ACCESS Freely available online

PLOS one

Protandim, a Fundamentally New Antioxidant Approach in Chemoprevention Using Mouse Two-Stage Skin Carcinogenesis as a Model

Jianfeng Liu^a, Xin Gu^a, Delira Robbins^a, Guohong Li^a, Runhua Shi^a, Joe M. McCord^a, Yunfeng Zhao^{a,*}

^a Department of Pharmacology, Toxicology and Neuroscience, Louisiana State University Health Sciences Center, Shreveport, Louisiana, United States of America, ^b Department of Pathology, Louisiana State University Health Sciences Center, Shreveport, Louisiana, United States of America, ^c Department of Neurosurgery, Louisiana State University Health Sciences Center, Shreveport, Louisiana, United States of America, ^d Fife-Weiler Cancer Center, Louisiana State University Health Sciences Center, Shreveport, Louisiana, United States of America, ^e Department of Medicine, University of Colorado Health Sciences Center, Denver, Colorado, United States of America

Abstract

Oxidative stress is an important contributor to cancer development. Consistent with that, antioxidant enzymes have been demonstrated to suppress tumorigenesis when being elevated both in vitro and in vivo, making induction of these enzymes a more potent approach for cancer prevention. Protandim, a well-defined combination of widely studied medicinal plants, has been shown to induce superoxide dismutase (SOD) and catalase activities and reduce superoxide generation and lipid peroxidation in healthy human subjects. To investigate whether Protandim can suppress tumor formation by a dietary approach, a two-stage mouse skin carcinogenesis study was performed. At the end of the study, the mice on a Protandim-containing basal diet had similar body weight compared with those on the basal diet, which indicated no overt toxicity by Protandim. After three weeks on the diets, there was a significant increase in the expression levels of SOD and catalase, in addition to the increases in SOD activities. Importantly, at the end of the carcinogenesis study, both skin tumor incidence and multiplicity were reduced in the mice on the Protandim diet by 33% and 57% respectively, compared with those on basal diet. Biochemical and histological studies revealed that the Protandim diet suppressed tumor promoter-induced oxidative stress (evidenced by reduction of protein carbonyl levels), cell proliferation (evidenced by reduction of skin hyperplasia and suppression of PKC/JNK/Jun pathway), and inflammation (evidenced by reduction of ICAM-1/VCAM-1 expression, NF- κ B binding activity, and nuclear p65/p50 levels). Overall, induction of antioxidant enzymes by Protandim may serve as a practical and potent approach for cancer prevention.

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Original Contribution

Synergistic induction of heme oxygenase-1 by the components of the antioxidant supplement Protandim

Kalpna Velmurugan^{a,b}, Jawed Alam^c, Joe M. McCord^d, Subbiah Pugazhenthi^{a,b,*}

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^b Section of Endocrinology, Veterans Affairs Medical

^c Department of Molecular Genetics, Oklahoma Medical

^d Division of Pulmonary Sciences, Department of Me



Available online at www.sciencedirect.com

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Free Radical Biology & Medicine 40 (2006) 341–347

Original Contribution

The induction of human superoxide dismutase and catalase in vivo: A fundamentally new approach to antioxidant therapy

Sally K. Nelson^{a,b}, Swapan K. Bose^a, Gary K. Grunwald^c, Paul Myhill^d, Joe M. McCord^{a,b,d,*}

^a Webb-Waring Institute for Cancer, Aging and Antioxidant Research, University of Colorado Denver Health Sciences Center, Denver, CO 80262, USA

^b Department of Medicine, University of Colorado Denver Health Sciences Center, Denver, CO 80262, USA

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^d LifeLine Therapeutics, Denver, CO, USA

Received 22 June 2005; revised 24 August 2005; accepted 28 August 2005

Abstract

A composition consisting of extracts of five widely studied medicinal plants (Protandim) was administered to healthy human subjects ranging in age from 20 to 78 years. Individual ingredients were selected on the basis of published findings of induction of superoxide dismutase (SOD) and/or catalase in rodents in vivo, combined with evidence of decreasing lipid peroxidation. Each ingredient was present at a dosage sufficiently low to avoid any accompanying unwanted pharmacological effects. Blood was analyzed before supplementation and after 30 and 120 days of supplementation (675 mg/day). Erythrocytes were assayed for SOD and catalase, and plasma was assayed for lipid peroxidation products as thiobarbituric acid-reacting substances (TBARS), as well as uric acid, C-reactive protein, and cholesterol (total, LDL, and HDL). Before

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Oxidative Stress in Health and Disease: The Therapeutic Potential of Nrf2 Activation

Brooks M. Hybertson^{a,b}, Bifeng Gao^a, Swapan K. Bose^a and Joe M. McCord^{a,b}

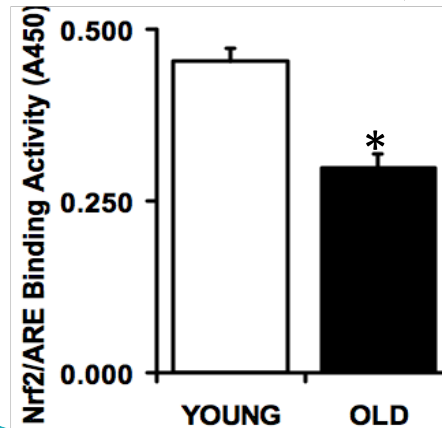
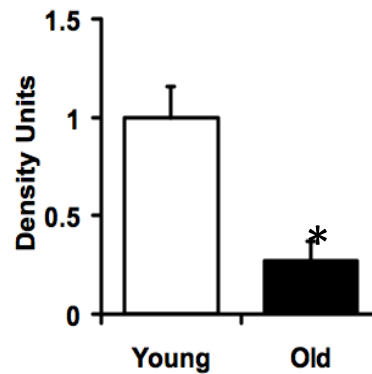
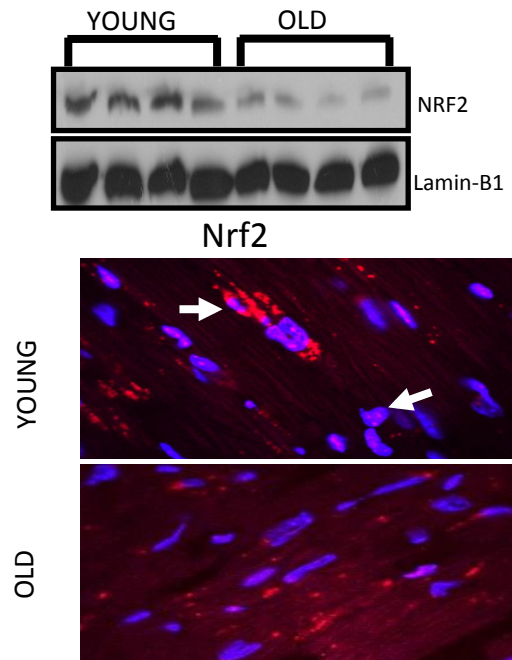
^aDepartment of Medicine, Division of Pulmonary Science and Critical Care Medicine, University of Colorado at Denver, Aurora, CO 80045

^bLifeVantage Corporation, 10813 S. Riverfront Parkway, South Jordan, UT 84095

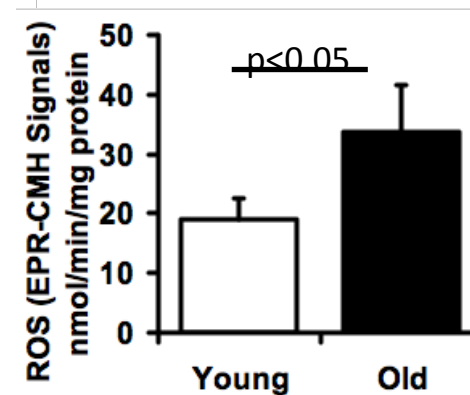
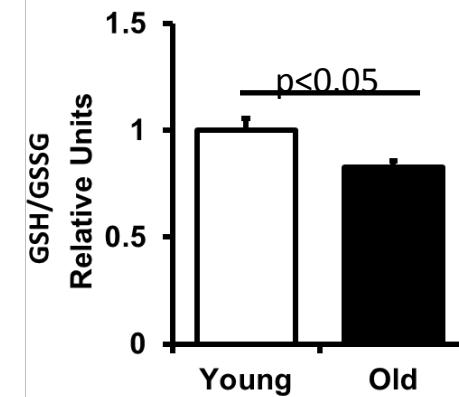


Nrf2 Declines with Age and Induces Oxidative Stress

WT (C57/Bl6) Mouse



Increased oxidative stress



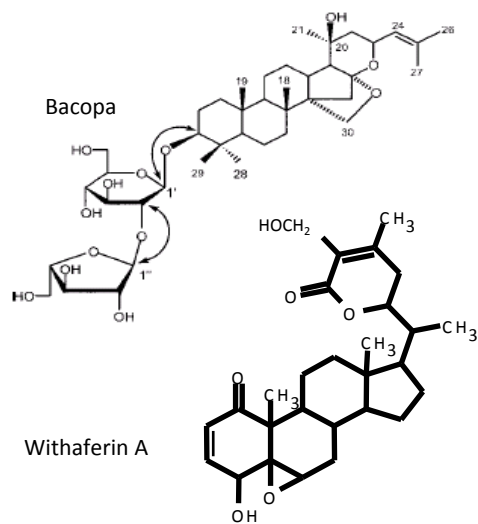
Nrf2 = a powerful “master regulator” of antioxidant enzymes and survival genes



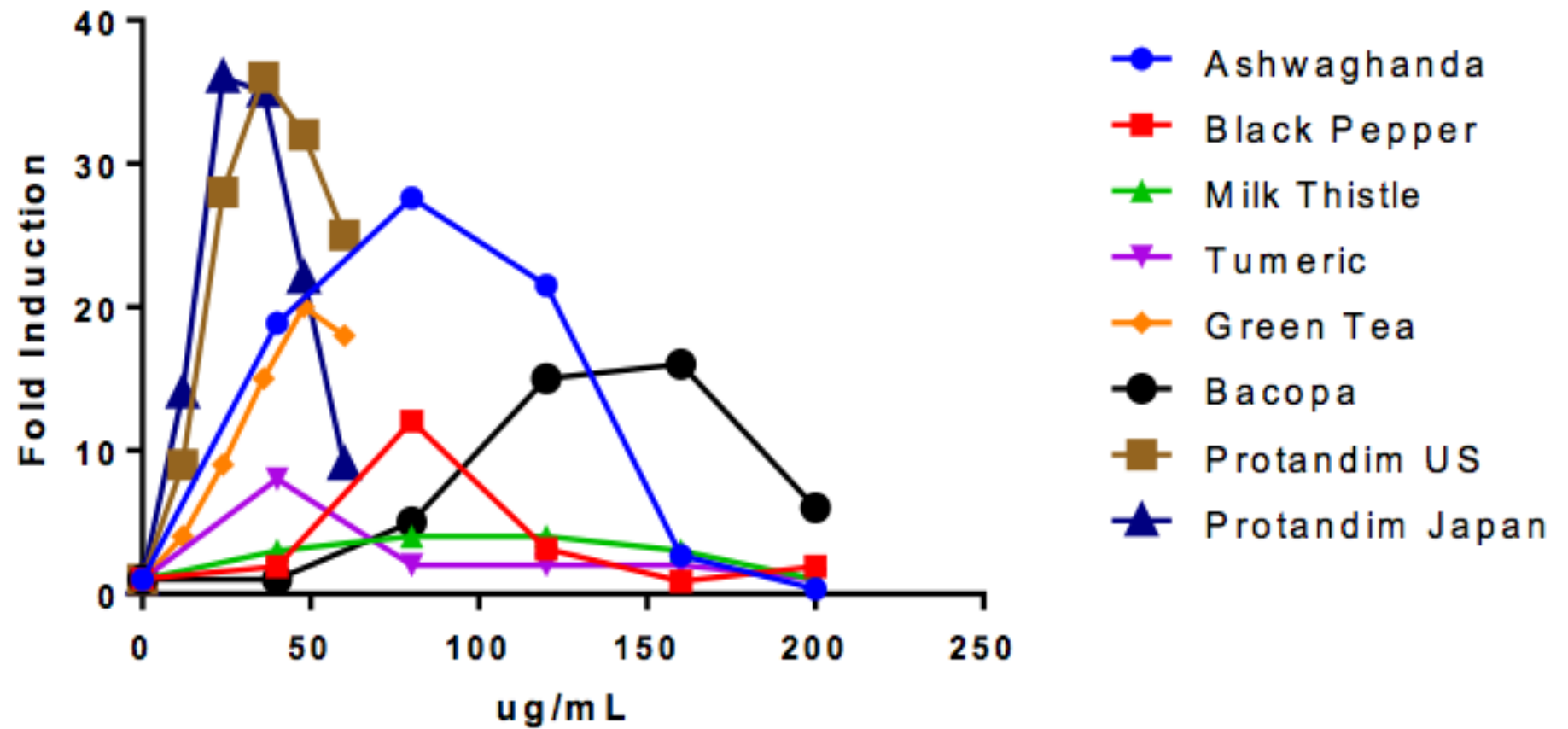
Bacopa

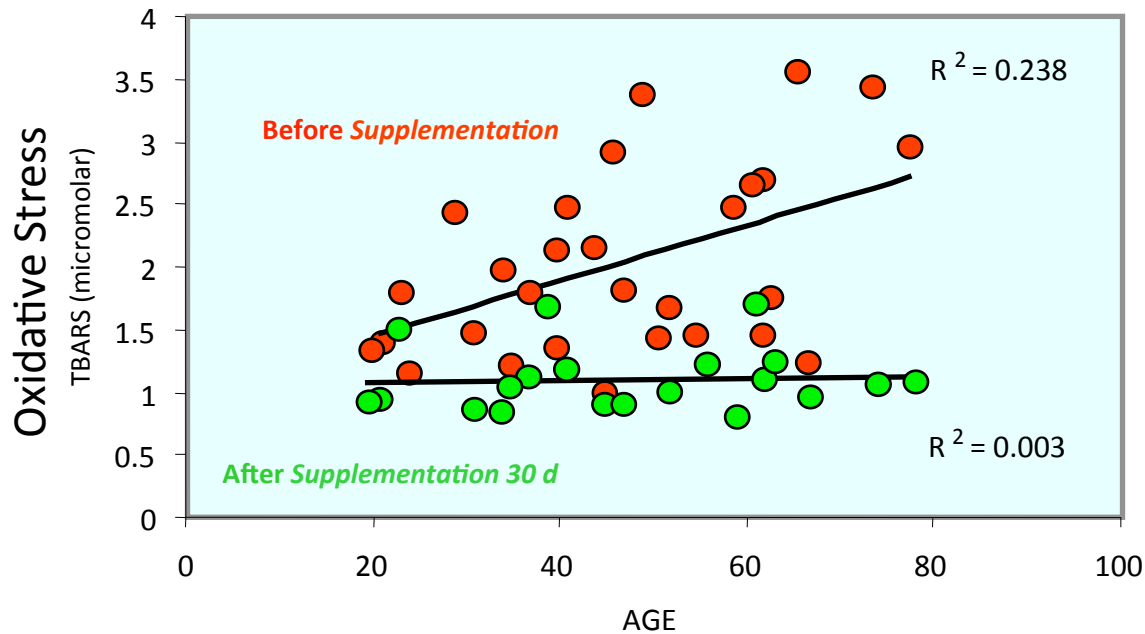


Ashwagandha



ARE reporter assay



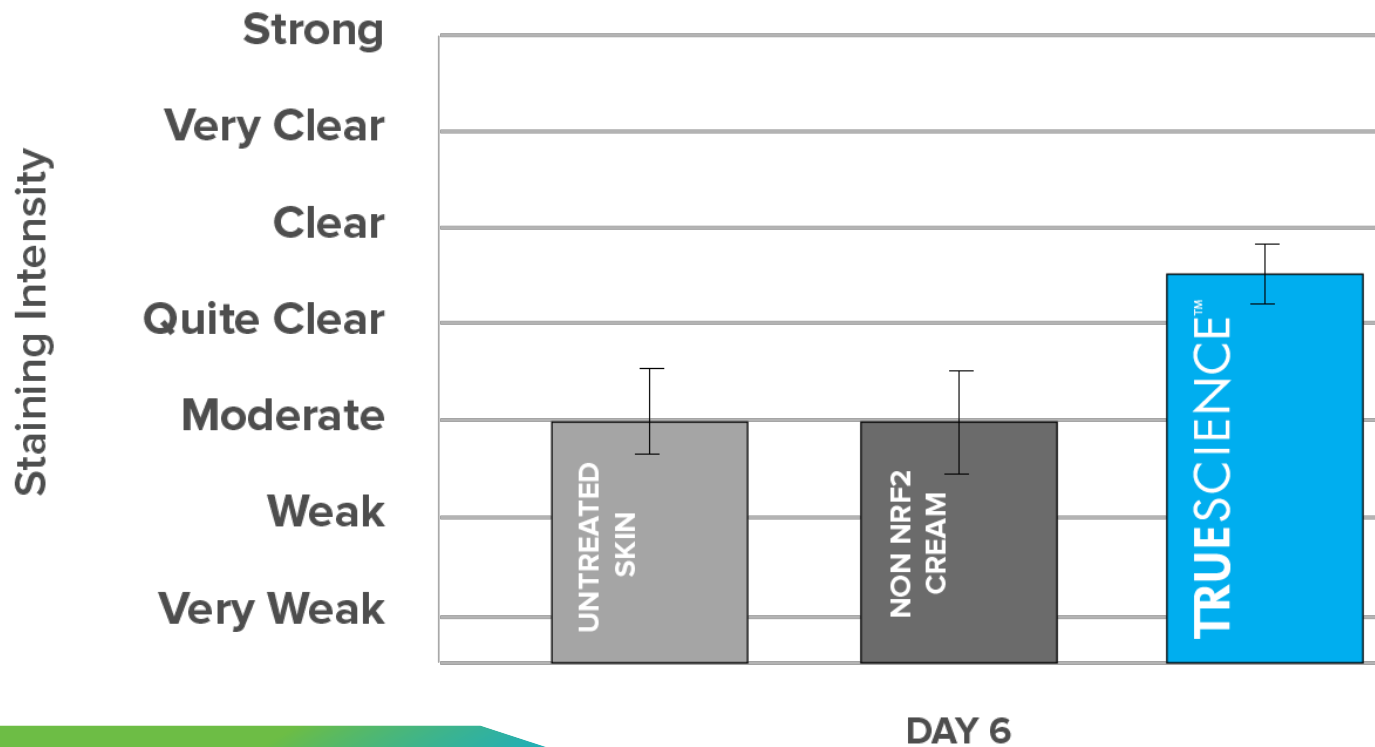


After 30 days...

“Remarkably, this age-dependent increase in TBARS was almost completely abolished by Protandim treatment (Fig. 1D), with an overall average reduction of the oxidative stress marker by 40%.”

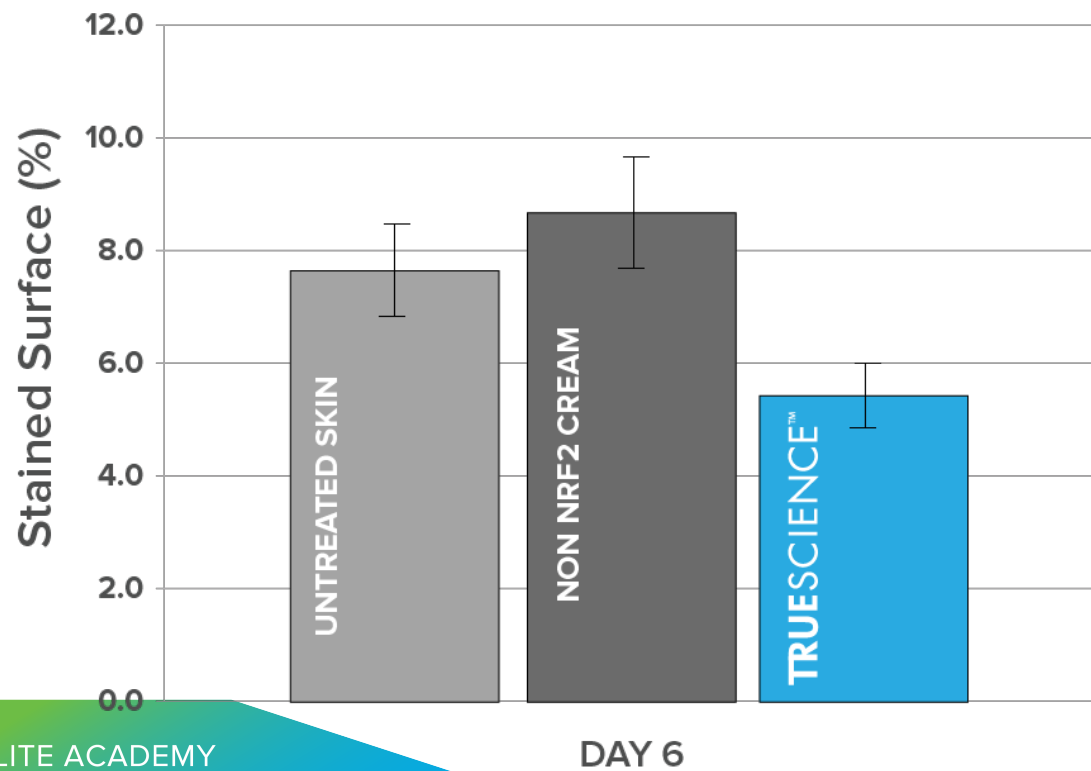
Nrf2 Staining Intensity 24 hours after UV Exposure

TrueScience™ Facial Cream results in more Nrf2 in skin, thus more protection!



Less Thymine Dimers with TrueScience

TrueScience™ Facial Cream with Nrf2 protects the cell DNA!



TrueScience™ Facial Cream with Advanced Nrf2 Technology has been shown to:

- Boost skin protection from UV exposure by reducing DNA damage
- Increase Nrf2 Protein amount, thus improve resistance to oxidative stress
- Fight the signs of aging though **all** layers of the skin

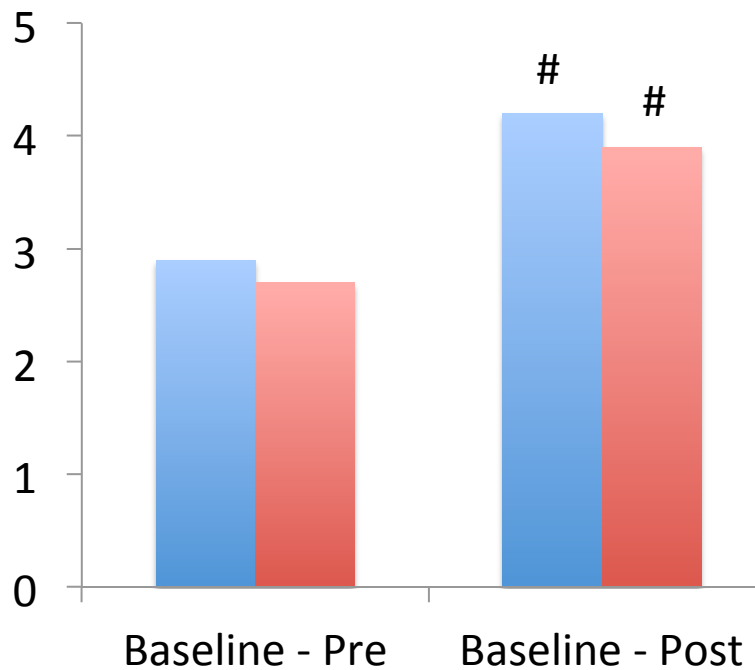


TrueScience Shaving Study

- 27 subjects (13 African-Americans), 30-65y
- 7 day usage
 - Ultra-Gentle Cleanser (shave)
 - Perfecting Lotion (repair)
 - Facial Cream (protect)
- Measures Pre/Post (trained technician)

Shaving – Irritation

0 = None / 2-3 Mild / 4-5 Moderate / 8-9 Severe

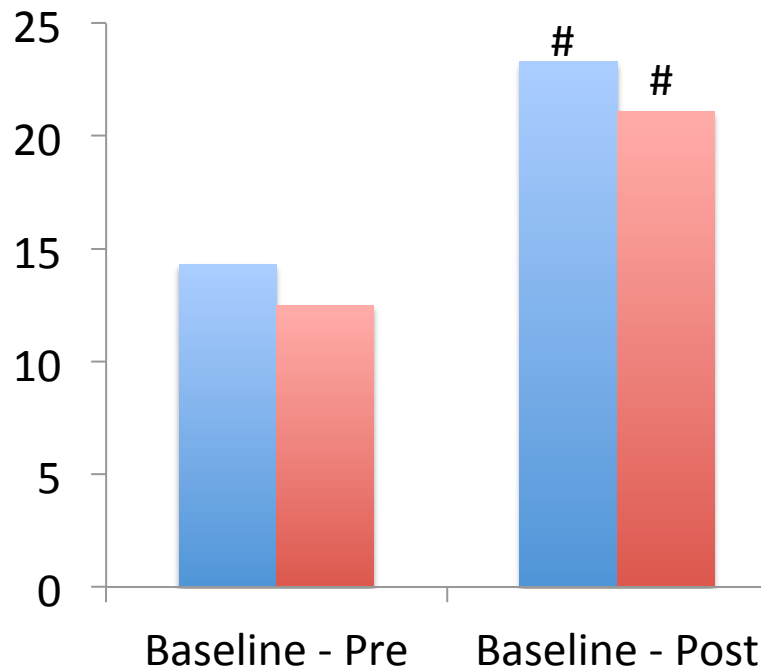


■ Group
■ Af-Am

Shaving – Barrier Function

TEWL – trans-epidermal water loss (higher = more damage)

5-12 Healthy / 13-16 Strained / 17+ Critical



■ Group
■ Af-Am

Shaving - Results



- Irritation Reduced 32%
- Barrier Function Improved 28%
- High Response rate (85%-100%)
- Good for Guys! (Bulletproof Skin)





SUPPLEMENT FACTS

Serving Size: 1 Packet

Serving Per Pouch: 30

	Amount Per Serving	% DV
Calories	10	
Total Carbohydrate	2 g	<1%*
Niacin (as Nicotinic Acid)	24 mg	120%
Vitamin B6 (as Pyridoxine HCL)	1.60 mg	80%
Vitamin B12 (as Methylcobalamin)	6 mcg	100%
Magnesium (as Magnesium Aspartate)	10 mg	2%
Caffeine	100 mg	†
Proprietary Blend	500 mg	
DMAE Bitartrate		†
Green Tea Extract (Camellia sinensis) (Aerial)		†
Quercetin Dihydrate		†
Monterey Pine Extract (Pinus radiata) (Bark)		†
L-Theanine		†

*% Daily Value are based on a 2,000 calorie diet.

† Daily Value not established

SUPPLEMENT FACTS

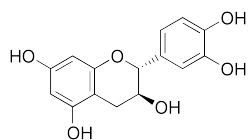
Serving Size: 1 Packet

Serving Per Pouch: 30

	Amount Per Serving	% DV
Calories	15	
Total Carbohydrate	3 g	1%*
Niacin (as Nicotinic Acid)	20 mg	100%
Vitamin B6 (as Pyridoxine HCL)	1.60 mg	80%
Vitamin B12 (as Methylcobalamin)	6 mcg	100%
Magnesium (as Magnesium Aspartate)	10 mg	2%
Proprietary Blend	280 mg	
Green Tea Extract (Camellia sinensis) (Aerial)		†
Monterey Pine Extract (Pinus radiata) (Bark)		†
L-Theanine		†
Quercetin Dihydrate		†

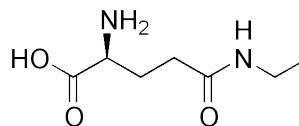
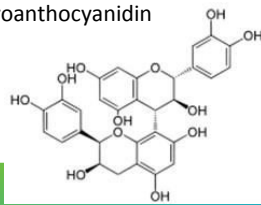
*% Daily Value are based on a 2,000 calorie diet.

† Daily Value not established

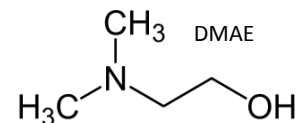


Catechin

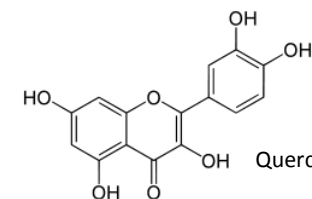
Proanthocyanidin



L-Theanine



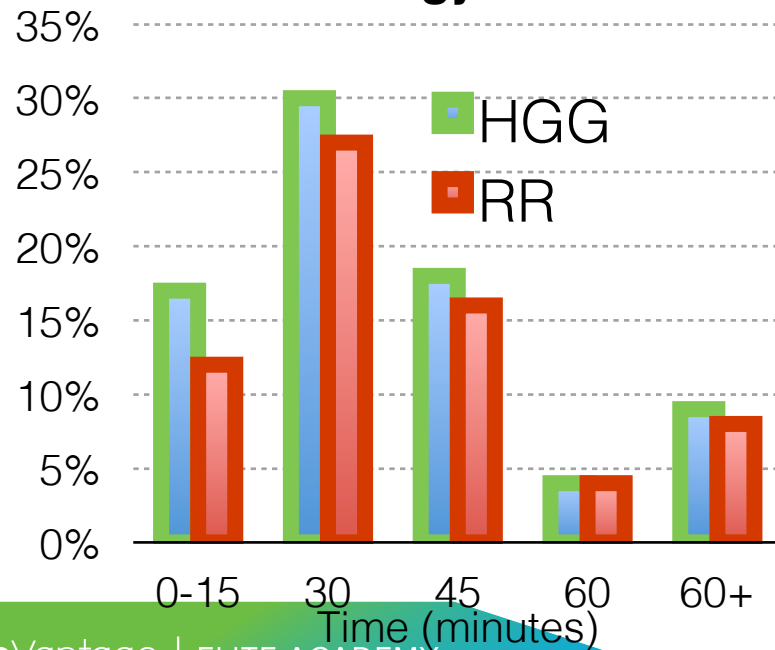
DMAE



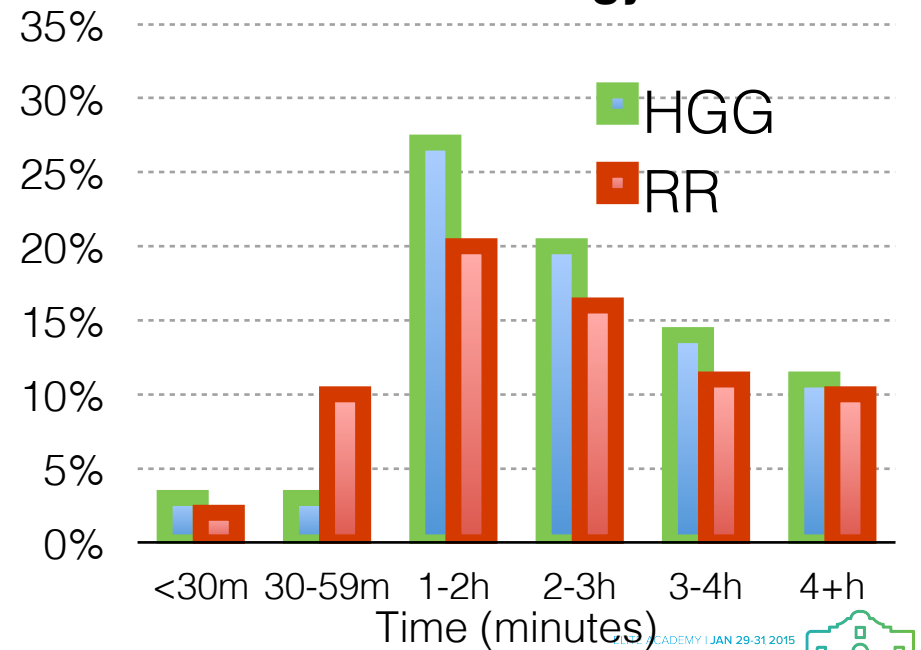
Quercetin

Axio Usage Survey

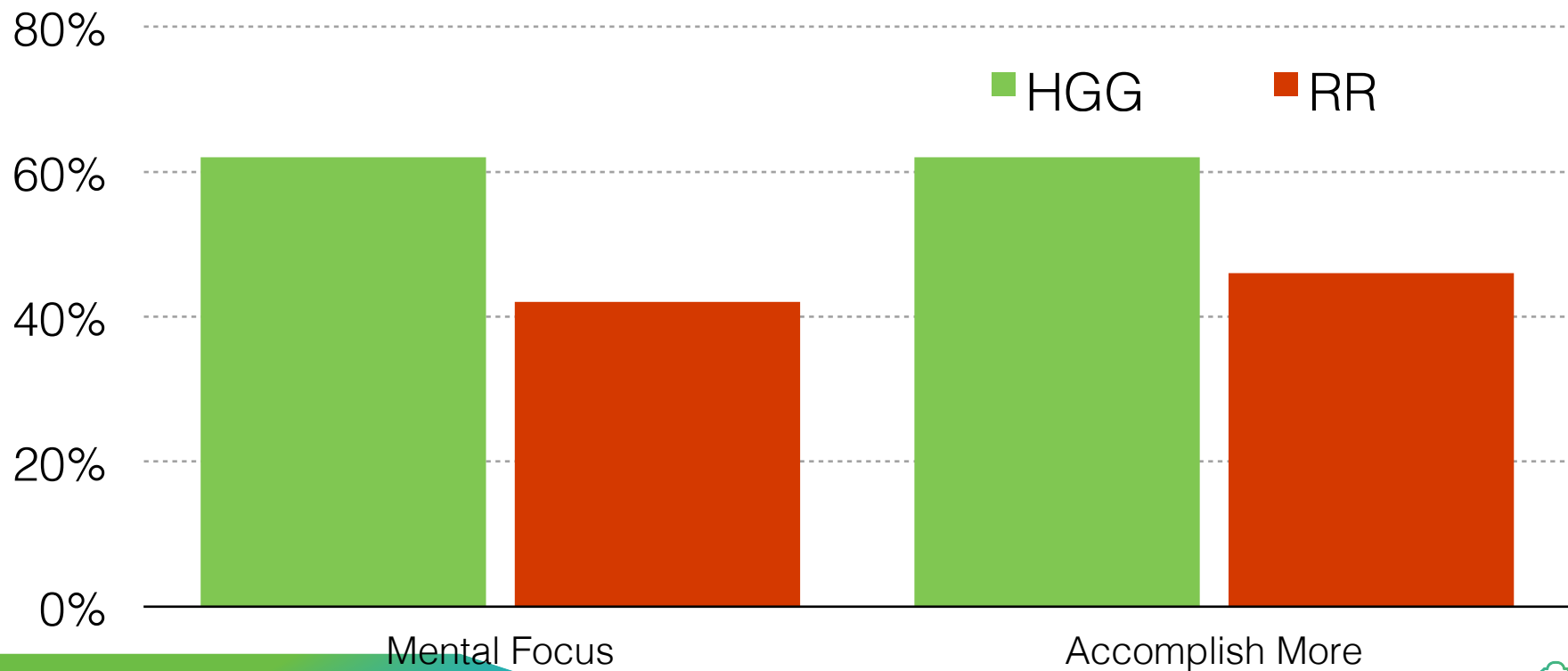
Initial Energy Boost



Duration of Energy Boost

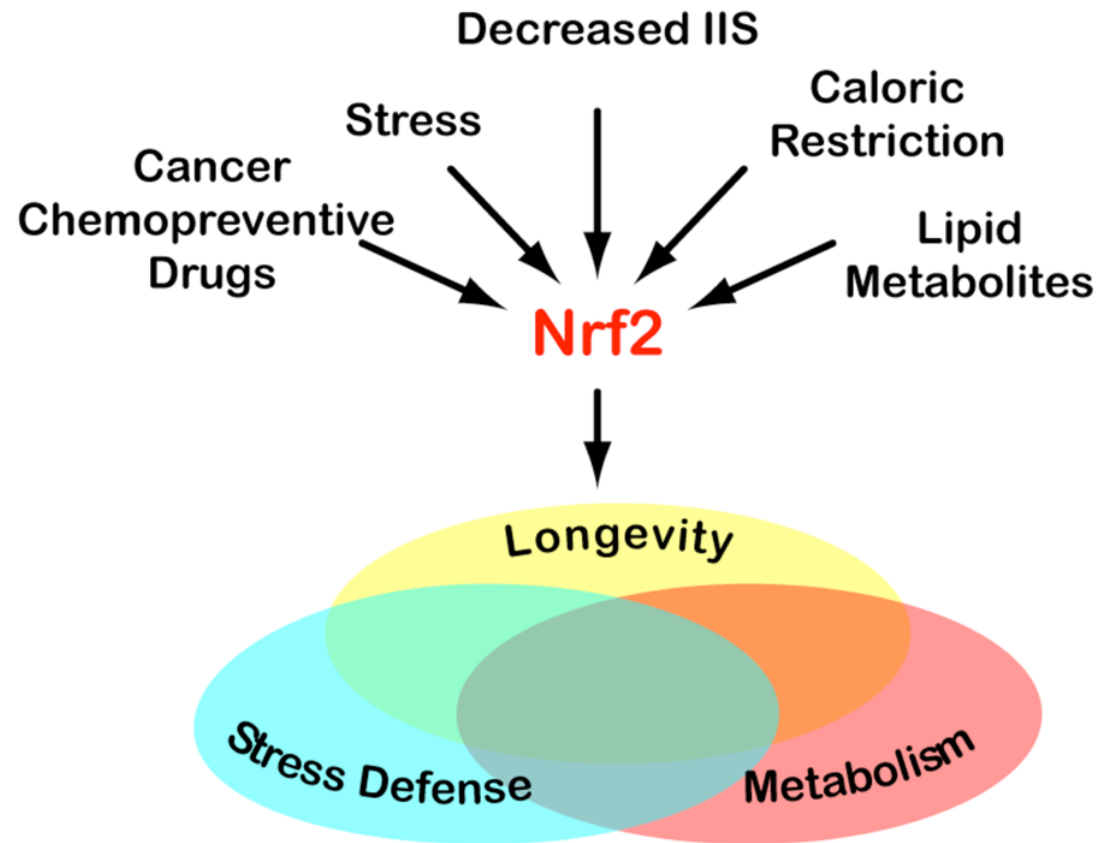


Axio Usage Survey

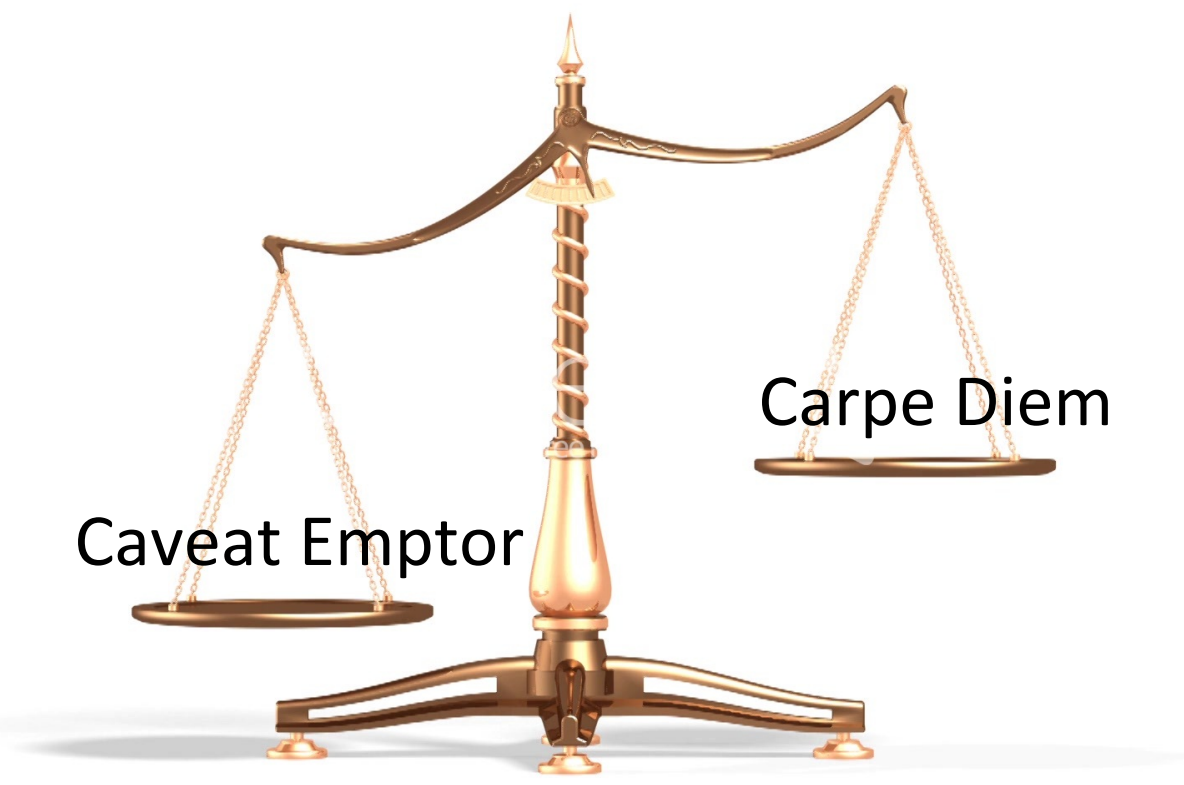




Nrf2 as a *Convergence Point* for Stress, Metabolic, and Longevity Signals







Caveat Emptor

Carpe Diem