



SAMUELI INSTITUTE

EXPLORING THE SCIENCE OF HEALING



ANNUAL REPORT 2010

Samueli Institute

is a non-profit 501(c)3 research organization supporting the scientific **exploration** of **healing** and **wellness**, and their role in medicine, with the mission of **transforming health care** worldwide.

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Our Vision is a world in which healing is the formative concept for achieving and maintaining wellness and ameliorating chronic disease.

Our Mission is to transform health care through the scientific exploration of healing.

Our Values

Service to the public: As a non-profit service organization, Samueli Institute serves as a facilitator of research on healing—making discoveries, developing relationships, conducting research and building a rigorous science that results in shared knowledge, improved patient care and healthful living.

Scientific exploration: Samueli Institute supports science grounded in observation, investigation and analysis and has the courage to ask challenging questions within a framework of systematic, high-quality research methods and the peer-review process.

Integrity in all we do: Samueli Institute acts with the highest respect for the public it serves by ensuring transparency, responsible management and ethical practices.

HEALING

A MESSAGE FROM SUSAN SAMUELI AND WAYNE JONAS

In 2010, Samuelli Institute made great strides in advancing the science of healing and integrative health care. Recommendations from the Institute's Wellness Initiative for the Nation were integrated into the Affordable Care Act of 2010 in the form of the Prevention, Health Promotion and Public Health Council. This Council calls for a trans-agency effort to examine health promotion, public health and integrative practices to provide a new vision for health and health care. We will continue to work with the Office of the U.S. Surgeon General and other governmental agencies to ensure that healing and wellness are at the forefront of health care reform efforts across the nation.

Our 2010 research efforts were widely disseminated through journal articles, book chapters and presentations. As you will see in this report, the Military Medical Research program continued to expand with work on the Total Force Fitness program of the Office of the Chairman of the Joint Chiefs of Staff. We also conducted evaluations of resilience training programs and developed projects in acupuncture for pain management and Post Traumatic Stress Disorder. The Brain, Mind and Healing program appointed new fellows and expanded its research efforts in the areas of placebo and consciousness. The Optimal Healing Environments program conducted national surveys on CAM use in hospitals and provided training programs in holistic nursing at Veterans Administration hospitals. The Health Research and Education program continued to develop studies in the areas of nutrition and diet, with a focus on children.

This has been a year of enormous growth for Samuelli Institute as we have added new staff and expanded our efforts in health policy. As we approach our 10th year, we plan to continue our outreach by working to translate research so that new knowledge about healing and wellness will be included in our national conversation on health reform and integrated into health care practice. We invite you to join us as we seek to transform health care through the science of healing.



Susan Samuelli, PhD
Chair



Wayne B. Jonas, MD
CEO



2010 SAMUELI INSTITUTE NEW INITIATIVES

Samueli Institute investigates the safety and effectiveness of integrative medicine and healing oriented practices and environments.

Health Research and Education

In 2010, Samueli Institute established a center for Health Research and Education, which is dedicated to lifestyle research related to health outcomes. Our research seeks to enhance healthful lifestyles for people worldwide by providing the highest quality science and bridging the gap between research and practice. The Health Research and Education initiative is engaged in research projects that include basic animal research, randomized controlled trials and secondary analysis of nationally representative data. Scientific partnerships include the military, academia and industry to provide state-of-the-art research. The breadth of the Health Research and Education portfolio spans health outcomes related to diet, nutrition, dietary supplements and physical activity.

The Health Research and Education team is experienced in the fields of nutrition, exercise physiology, psychology, comparative medicine, public health and animal science with expertise in dietary supplements, botanicals, diet, exercise, maternal and child health, and optimal performance research in the military.

Health Policy

During 2010, the Institute continued to be the “go-to” organization and resource in health and wellness policy for both Congress and the Administration. The Wellness Initiative for the Nation (WIN), developed two years ago, helped to establish the Prevention, Health Promotion and Public Health Council of the Affordable Care Act of 2010. Chaired by United States Surgeon General Regina Benjamin, MD, and composed of senior government officials across federal departments and agencies, the Council is charged with elevating and coordinating prevention activities and designing a focused strategy across federal agencies to prevent disease and promote the nation’s health.

Across the Institute

New Board Members

Samueli Institute was honored to welcome two new members to its Board of Directors, Gail C. Christopher, DN and William A. Read, PhD. Dr. Christopher is vice president for program strategy at the W.K. Kellogg Foundation in



Battle Creek, Mich. In this role, she serves on the executive team that provides overall direction and leadership for the Foundation and leads the Food, Health & Well-Being, Racial Equity, Civic Engagement, New Orleans and New Mexico place-based programming. Dr. Read is senior vice president, Research and Special Projects at the Flinn Foundation in Phoenix, Ariz., where he oversees the Foundation's basic and translational research programs, and serves as the Foundation's lead official in interfacing with the scientific research community.

New Fellows

Samueli Institute appointed three new Fellows—David Hufford, PhD, professor and director at the Doctors Kienle Center for Humanistic Medicine at the Penn State College of Medicine in Hershey, Penn.; Stephan A. Schwartz, writer and researcher on the nature of consciousness; and Eduard Van Wijk, PhD, senior scientist, Division of Analytical Biosciences, Leiden University in the Netherlands who all joined the Institute's Brain, Mind and Healing Program. Developed with funding from the Laurance

S. Rockefeller Fund, the Fellows program supports researchers and scholars in the fields of consciousness, spirituality, mind-body practices, and the placebo effect and its impact on the healing process.

New Department

With a goal of translating and disseminating knowledge about integrative health care and healing processes, Samueli Institute created a new Communications Department. The goals of the Department are: to create a sustainable level of ongoing communications to external audiences such as the public, hospitals, foundations and health policy makers; to broaden the Institute's sphere of influence by introducing more people to the Institute's approach to health care research; and to develop supporters and partnerships for Institute sponsored research projects through communications to our key audiences.

New Staff

Samueli Institute also hired 20 new employees in 2010—the largest number in a single year since our inception—bringing the total to 49.

"The health of the future is not simply the search for new, modern innovations. Sometimes it means turning around to find what we have forgotten about human flourishing: those basic skills, behaviors and attitudes that maintained thriving communities before science and technology arrived. We need to revisit and reintegrate those into the modern world, using the tools of science, evidence and technology. In this way, we can move into a healthier future while drawing on the wisdom of the past."
—Wayne B. Jonas



2010 SAMUELI INSTITUTE PROGRAM ACCOMPLISHMENTS

“We are driven by the compelling moral imperative to explore all means of healing for those who are in harm’s way in defense of our freedom and security.”

—Joan Walter, COO
Samueli Institute

Military Medical Research

In 2010, the Institute continued to work with the Department of Defense to assist military service members and veterans in the areas of stress and pain management, resilience and performance optimization. The Institute and its research partners are working to provide the evidence base for an integrative health care approach to meeting the health and wellness needs of military service members, veterans and their families. The Military Medical Research program has built a portfolio of research projects to provide relevant information to the military and the public on the rationale, feasibility, effectiveness and benefits of integrative health care. The program’s goal is to develop a set of methodologies and metrics that are sufficiently robust to address integrative medical practices in a variety of contexts, and to employ these methods and metrics to answer critical questions of efficacy, integration and implementation, and comparative effectiveness. For example, the Institute recently completed a mixed methods (both quantitative and qualitative data) program evaluation of the WAROPS™ resilience skills training program at Fort Carson, Colo. The study, which involved nearly 4000 soldiers who

were deployed to Afghanistan, evaluated the delivery of the training skills program and the soldiers’ use and practice of the skills during deployment to a war zone. The study also collected follow-up data on mental health, physical health, quality of life, social factors, unit cohesion and individual resilience for six months after the soldiers returned from the war zone.

In the area of pain research, the Institute is conducting several research projects on the use and effectiveness of acupuncture as a treatment for pain. The studies are evaluating the use of acupuncture as an alternative to prescription pain medications and the effectiveness of acupuncture as a complementary treatment for military service members and veterans who have experienced traumatic brain injury. To disseminate these research findings, the Institute organized an Integrative Pain Management workshop in the Military Track at the American Academy of Pain Management Annual Conference in Las Vegas, Nev. Presentations included “Developing a Comprehensive Pain Management Strategy for the U.S. Army” and “Clinical and Research Initiatives in Integrated Care for Combat Troops.”



Total Force Fitness: A New Paradigm

Total Force Fitness is the state in which the individual, family and organization can sustain optimal well-being and performance under changing conditions. Institute scientists and Department of Defense researchers developed a new paradigm of *Total Force Fitness* that envisions an integrated approach to performance, readiness, health and well-being across the domains of military life: spiritual, psychological, behavioral, social, physical, nutritional, medical and environmental.

In collaboration with over 70 military and civilian experts, Samuelli Institute published a special issue of the journal *Military Medicine* entitled *Total Force Fitness for the 21st Century: A New Paradigm*. Institute staff members gave presentations on this topic at the Joint Health Force Protection Conference in Phoenix, Ariz., August 7–13, 2010, and discussed the challenges of implementing a new, comprehensive and multi-dimensional fitness program in the military.



“The foundational layers of Total Force Fitness are risk reduction, health and well-being, resilience and optimal performance.”
—Wayne B. Jonas



We support a knowledge network that assists in integrating evidence-based information about healing into mainstream health care and community settings—creating Optimal Healing Environments.

Brain, Mind and Healing

Samueli Institute's Brain, Mind and Healing program is focused on the biological basis of mind-body interactions and consciousness as they relate to the healing process. In 2010, three Fellows joined the Institute, bringing expertise in the areas of spirituality, consciousness and biophotonic studies. The program's research portfolio also includes spirituality, placebo and low-dose natural products. With support from the Laurance S. Rockefeller Fund, the program sponsored a Brain, Mind and Healing Symposium at the Institute's Alexandria offices and co-sponsored a Placebo Symposium on Psychological Mediators and Clinical Relevance of Placebo Effects at Lake Starnberg, Germany. It also co-sponsored a conference "Neuroscience, Consciousness, and Spirituality II: Meditation Research" in Freiburg, Germany.

The Brain, Mind and Healing program continued to expand its research efforts in fiscal year 2010. Harald Walach, PhD, the Institute's coordinator for the European Office, established a research program in the Institute

of Transcultural Health Studies at the Viadrina European University. Brain, Mind and Healing program researchers also published significant articles on the role of mercury in Alzheimer's disease and the treatment of Fibromyalgia with Mindfulness training (see Publications List).

Optimal Healing Environments

In 2010, the Optimal Healing Environments (OHE) program launched a nurse training initiative in collaboration with the Penny George Institute for Health and Healing. Samueli Institute is evaluating four training programs in holistic nursing philosophy, theory and practice. Almost 100 nurses from Veterans Administration Medical Centers in Long Beach and Los Angeles, Calif., took part in the training. The trainings are one component of a larger study entitled *Integrative Medicine, Communication, Compassion and Chronic Care Research* being conducted by the Institute to develop and test a coordinated approach to the delivery of communication, compassion and integrative medicine in military, veterans and civilian hospitals.



The Optimal Healing Environments program also conducted the *2010 Complementary and Alternative Medicine Survey of Hospitals*. The survey is the only one of its kind in the country and it was sent to over 6000 hospitals in the nation. The purpose of this survey is to garner in-depth information about the types of OHE programs and services being offered by hospitals, their program costs, revenue, staffing, reimbursement and other business strategies related to the hospitals' efforts to integrate complementary and alternative medicine therapies into the hospital setting.

Informatics, Data Management and Analysis

The Center for Informatics, Data Management and Analysis (CIDMA) was formed and fully staffed in July 2010 to support all Samueli Institute information technology and bio-computing efforts across a full spectrum of integrative and conventional medicine research designs and therapeutic interventions. Data management services provided by CIDMA include "end-to-end" study-based statistical support for research projects and responsibility for creating, maintaining and

merging databases, implementing quality control procedures and managing safety and monitoring activities. The Center worked closely with our researchers and investigators to provide resources and expertise using a robust communication and web-based electronic data capture capability that supports the secure, efficient and timely management of research projects and studies.

Advancement and Sustainability

Samueli Institute was pleased to receive a grant from the Laurance S. Rockefeller Fund to enhance its communications efforts. Along with a matching gift from our founders, Susan and Henry Samueli, the Institute is expanding its public communications through the development of products such as a new website, a quarterly newsletter and public outreach programs.

The Institute continues to build partnerships with organizations such as Grantmakers in Health, the W.K. Kellogg Foundation, the Peter Schilffarth Institute and others to increase its knowledge translation and education efforts in the areas of healing processes, prevention and wellness.

"The more we study the body and the mind, the more we find both to be governed not by, but according to laws, such as we observe in the larger universe."
— Oliver Wendell Holmes, 1858

Statement of Financial Position

Samueli Institute for Information Biology/dba/Samueli Institute

Samueli Institute's financial records were independently audited by the Certified Public Accountant firm of Gelman, Rosenberg & Freedman of Bethesda, Maryland, according to auditing standards set forth in the Government Auditing Standards of the Comptroller of the United States. For additional financial information, please contact the Controller's Office at Samueli Institute.

Statement of Activities and Change in Net Assets	2010			2009
	Unrestricted	Temporarily Restricted	Total	Total
REVENUE				
Grants and contracts from government agencies	\$ 6,262,126	\$ —	\$ 6,262,126	\$ 5,997,607
Private contributions	4,065,000	890,625	4,955,625	7,058,925
Contracts	571,583	—	571,583	—
Interest and investments	14,076	—	14,076	(173)
Other revenue	605,610	—	605,610	548,924
Net assets released from donor restrictions	580,566	(580,566)	—	—
Total revenue	12,098,961	310,059	12,409,020	13,605,283
EXPENSES				
Program services	8,779,543	—	8,779,543	7,907,121
General and administrative	1,640,401	—	1,640,401	1,519,342
Fundraising	138,481	—	138,481	34,905
Total expenses	10,558,425	—	10,558,425	9,461,368
Change in net assets	1,540,536	310,059	1,850,595	4,143,915
Net assets at beginning of year	4,468,404	2,709,375	7,177,779	3,033,864
Net assets at end of year	\$ 6,008,940	\$ 3,019,434	\$ 9,028,374	\$ 7,177,779

Statement of Functional Expenses	2010			2009
	Program Services	General and Administrative	Advancement	Total Expenses
Salaries and wages	\$ 2,779,171	\$ 306,323	\$ 57,049	\$ 3,142,543
Employee benefits	1,212,643	134,662	19,428	1,366,733
Accounting and audit	28,093	9,785	1,412	39,290
Conferences, meetings, training	50,938	2,782	401	54,121
Depreciation and amortization	145,450	44,464	6,415	196,329
Dues and subscriptions	9,619	3,331	481	13,431
Equipment rental	11,036	3,844	555	15,435
Insurance	40,743	14,191	2,047	56,981
Legal	45,211	10,357	1,494	57,062
Lobbying	92,512	—	—	92,512
Meals and entertainment	59,637	6,399	923	66,959
Miscellaneous	68,485	10,202	1,472	80,159
Office expenses	49,680	17,217	2,484	69,381
Gifts/donations	11,158	3,886	561	15,605
Grants paid	1,952,156	—	—	1,952,156
Repairs	3,985	1,388	200	5,573
Rent	359,243	896,315	17,826	1,273,384
Taxes and licenses	45,147	15,725	2,269	63,141
Sub-contractors/Consultants	979,615	63,294	9,580	1,052,489
Telephone and information technology	550,977	70,569	10,181	631,727
Travel and lodging	271,139	23,412	3,378	297,929
Supplies	12,905	2,255	325	15,485
Total	\$ 8,779,543	\$ 1,640,401	\$ 138,481	\$ 10,558,425
				\$ 9,461,368

Samueli Institute is a non-profit 501(c)3 organization that receives philanthropic support from private individuals, corporations, other charitable organizations and government grants. All donations to the Samueli Institute are tax deductible to the extent allowable by federal and state regulations.

Selected Publications—October 2009 to September 2010

Following is a selection of Samuelli Institute publications for fiscal year 2010. For a complete list of books, book chapters, journal articles and other scholarly publications, please visit www.SamuelliInstitute.org.

Ananth S, Jonas W. Implementing OHEs. *Explore*. 2010.

Ananth S. Taking premonitions seriously. *Hospitals & Health Networks*. 2010.

Ananth S. Health care reform and CAM. *Hospitals & Health Networks*. 2010.

Ananth S. Kaiser Permanente's total health environment. *Explore*. 2010.

Ananth S. Key experiences. *Hospitals & Health Networks*. 2010.

Bates M, Bowles S, Hammermeister J, et al. *Psychological Fitness*. *Mil Med*. 2010.

Calabrese E, Jonas W. Evaluating homeopathic drugs within a biomedical framework. *Hum Exp Toxicol*. 2010.

Calabrese E, Jonas WB. Homeopathy: clarifying its relationship to hormesis. *Hum Exp Toxicol*. 2010.

Coulter I, Lester P, Yarvis J. *Social Fitness*. *Mil Med*. 2010.

Findlay B, Smith K, Crawford C, et al. Methodological complexities associated with systematic review of healing relationships. *Altern Ther Health Med*. 2010.

Firth K, Smith K. A Survey of Multidimensional Health and Fitness Indexes. *Mil Med*. 2010.

Guethlin C, Walach H, Naumann J, et al. Characteristics of cancer patients using homeopathy compared with those in conventional care: a cross-sectional study. *Ann Oncol*. 2010.

Hinterberger T, Schoner J, Halsband U. An Analysis of EEG State Transitions during Hypnosis Induction. *Int J Clin Exp Hypn*. 2010.

Hufford D. Visionary Spiritual Experiences in an Enchanted World. *Anthropology and Humanism*. 2010.

Hufford D, Fritts M, Rhodes J. *Spiritual Fitness*. *Mil Med*. 2010.

Ives J, Moffett J, Peethambaran A, et al. Enzyme stabilization by glass-derived silicates in glass-exposed aqueous solutions. *Homeopathy*. 2010.

Jonas W. What dose metaphor? *Hum Exp Toxicol*. 2010.

Jonas W, Deuster P, O'Connor F, Macedonia C. Total Force Fitness for the 21st Century: A New Paradigm. *Mil Med*. 2010.

Jonas W, O'Connor F, Deuster P, et al. Why Total Force Fitness? *Mil Med*. 2010.

Khorsan R, York A, Coulter I, et al. Patient-based outcome assessment (PBOA) instruments in acupuncture research. *J Altern Complement Med*. 2010.

Khorsan R, Coulter I, Crawford C, Hsiao A. Systematic review of integrative health care research: randomized control trials, clinical controlled trials and meta-analysis. *Evid Based Complement Altern Med*. 2010.

Kohls N. Ambient Assistive Technologies (AAT): Socio-Technology as a Powerful Tool for Facing the Inevitable Sociodemographic Challenges? *Phil Ethics Humanities in Med*. 2010.

Marriott BP, Olsho L, Hadden L, Connor P. Intake of Added Sugars and Selected Nutrients in the United States, National Health and Nutrition Examination Survey (NHANES) 2003-2006. *Crit.Rev. in Food Sci and Nutrition*. 2010.

Muller S, Walach H. The feeling of being stared at—a parapsychological classic with a facelift. *Eur J Parapsych*. 2010.

Mutter J, Curth A, Naumann J, et al. Does Inorganic Mercury Play a Role in Alzheimer's Disease? A Systematic Review and an Integrated Molecular Mechanism. *J Alzheimers Dis*. 2010.

Schmidt S, Grossman P, Schwarzer B, et al. Treating Fibromyalgia with Mindfulness Based Stress Reduction - Results from a Three-Armed Randomized Controlled Trial. *Pain*. 2010.

Schwartz S. The Denier Movements Critique Evolution, Climate Change, and Nonlocal Consciousness. *Explore*. 2010.

Schwartz S. Trends that will affect your future... nonlocal linkage and the social dimension. *Explore*. 2010.

Schwartz S. Nonlocality and Exceptional Experiences: A Study of Genius, Religious Epiphany and the Psychic. *Explore*. 2010.

Schwartz S. Bee Gone: The Breakdown of Ecosystems, and the Social Devastation That Must Inevitably Follow. *Explore*. 2010.

Schwartz S, Dossey L. Nonlocality, Intention, and Observer Effects in Healing Studies: Laying a Foundation for the Future. *Explore*. 2010.

van Wijk E, van Wijk R, Bosman S. Using ultra-weak photon emission to determine the effect of oligomeric proanthocyanidins on oxidative stress of human skin. *J Photochem Photobiol B*. 2010.

van Wijk E, van Wijk R, et al. Statistical analysis of the spontaneously emitted photon signals from palm and dorsal sides of both hands in human subjects. *J Photochem Photobiol B*. 2010.

van Wijk R, van der Greef J, van Wijk E. Human ultra-weak photon emission in relation to the "Yin/ Yang" concept of Chinese Medicine. *J Acupuncture Meridian Stud*. 2010.

Walach H, Runehov, AL. The epistemological status of transpersonal psychology. The database argument revisited. *J Consciousness Stud*. 2010.

Walach H, Lewith G. Homoeopathic remedies and drug-regulatory authorities. *Lancet*. 2010.

Walter J. Study summary: Acupuncture for Post-TBI headache. *Medical Corps Examiner*. 2010.

Walter J, Coulter I, Hilton L, et al. Program Evaluation of Total Force Fitness in the Military. *Mil Med*. 2010.

Samueli Institute is a non-profit 501(c)3 research organization supporting the scientific investigation of healing and its role in medicine and health care. Founded in 2001 by Henry and Susan Samueli, the Institute is advancing the science of healing worldwide. Samueli Institute's focus includes research on integrative medicine, optimal healing environments, the role of the mind in healing, behavioral medicine, health care policy, and military and veterans health care.



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