



ARIZONA CENTER FOR
Integrative Medicine

2014

ANNUAL REPORT

20 Years & Moving Forward



THE UNIVERSITY
OF ARIZONA

The University of Arizona Center for Integrative Medicine leads the transformation of health care by creating, educating and actively supporting a community that embodies the philosophy and practice of healing-oriented medicine, addressing mind, body and spirit.



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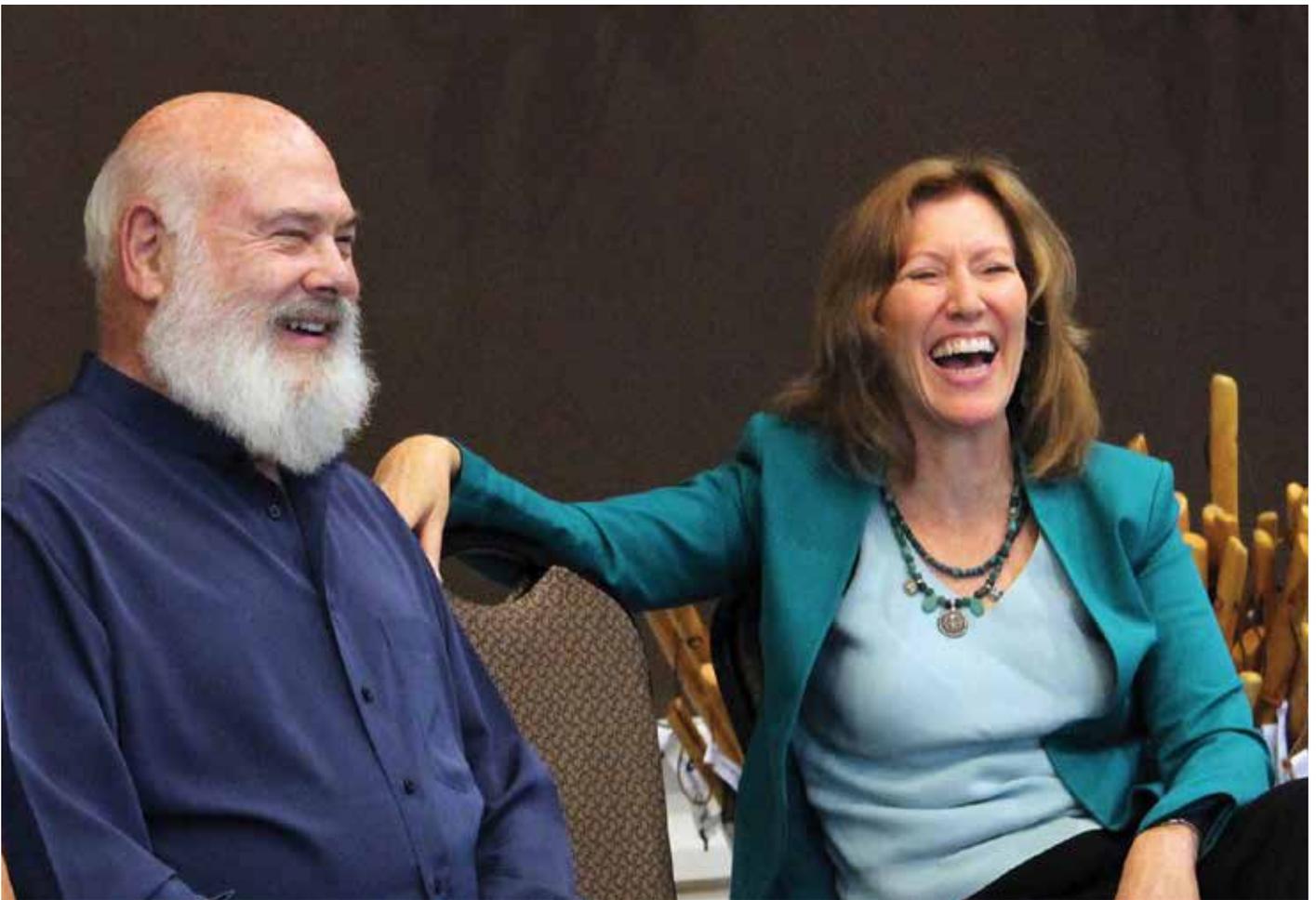
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Integrative Medicine

As we celebrate our 20th anniversary, the University of Arizona Center for Integrative Medicine is recognized as having the leading integrative medicine (IM) curricula, an innovative primary care clinical model and vitally important clinical outcomes research projects.



Founder and Director Andrew Weil, MD, and Executive Director Victoria Maizes, MD at the Summer 2014 graduation of the Fellowship in Integrative Medicine.

Moving Forward

We have firmly established IM as a new medical paradigm—a sound approach and a proven method to deliver healing-oriented medicine, prevention and wellness, and provide a unique patient-centered environment.

The global success of our medical education programs helped us reach a unique position this year. We were awarded the leadership of a \$1.7 million collaborative project to develop a National Center for Integrative Primary Healthcare, funded by the Health Resources and Services Administration, a division of the National Institutes of Health. Our educational content, teaching protocols and methods, and outstanding faculty and support staff will be the driving force behind this nationwide project.

Additionally, we have extended our curricula to licensed, registered, or certified health care professionals (including RNs, RDs, psychologists, and others) via the new Lifestyle Transformation initiative. The two programs (Integrative Health & Lifestyle and Integrative Health Coaching) address the whole person and emphasize the importance of lifestyle on health. And our Integrative Medicine in Residency program continues to expand: it is now licensed by 55 residency sites around the country. All of these efforts will have an immediate and direct impact on patient wellness.

Our Integrative Health Center in Phoenix has grown steadily, and is demonstrating that a patient-centered environment delivering IM primary care and supported by a unique funding method is working. Based on these positive results, and thanks to major donors who contributed in honor of their mothers, we are moving forward with the development

of our second clinic in Tucson. These clinical sites provide highly sought-after integrative patient care; in addition, they serve as training venues for IM health professionals and sources of research data on clinical outcomes and cost effectiveness.

A leading-edge research development this year was the formal establishment of our Institute on Place and Wellbeing (IPW) by the provost and vice president for research at the University of Arizona. The IPW will be used to study the effects of built and natural environments on human health, provide another training setting, and will have the potential to impact IM wellness therapies.

A sound approach and a proven method to deliver healing-oriented medicine.

This year we moved forward extending our IM paradigm more broadly into practice in all three domains: education, clinical care, and research. We coordinated every course, each

clinical initiative, and all evaluation using this model. This strategy has resulted in wonderful accomplishments, making 2014 an exciting year for us and for the growth of IM health care.

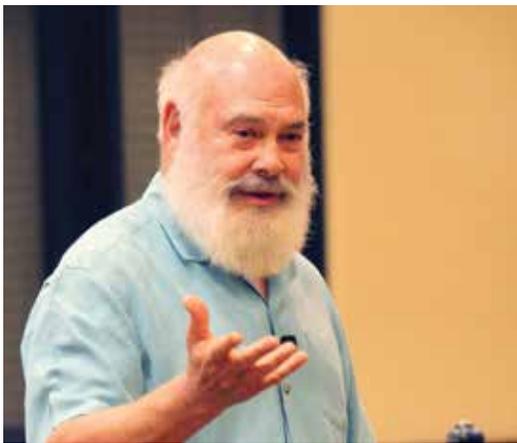
We are ever grateful to you for the support that helped make all this possible.

Best in health,

Andy & Victoria

About the Center

The University of Arizona Center for Integrative Medicine (Center) is leading the transformation of health care by creating, educating and actively supporting a community that embodies the philosophy and practice of healing-oriented medicine. The Center is internationally recognized for its innovative educational programs, evidence-based clinical practice, and research that substantiate the field of integrative medicine and influence public policy. Since its creation in 1994, the Center's vision of making integrative care available to all is being realized worldwide: Center graduates are now guiding more than one million patients to take a greater role in their health and healing. You can learn more about the Center by visiting www.azcim.org.



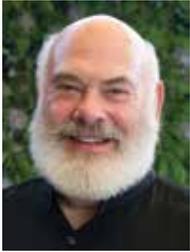
“We’ve built a strong platform for the field of integrative medicine over the past 20 years. Now is the time to go for larger goals: setting up IM clinics in Tucson and elsewhere, extending our curriculum to more residency programs, documenting the cost effectiveness of IM and thereby affecting health care policy and reimbursement for IM providers. Time is on our side.” —Andrew Weil, MD

“We will build upon the strong and highly effective foundation we have created to broaden our impact in education, clinical care, and research. We will explore new topics—such as end of life—and offer new trainings—such as coaching. We will continually improve our fellowship and IMR programs, replicate our Integrative Primary Care Clinic, and broaden our research initiatives to explore the impact of place on wellbeing.”

—Victoria Maizes, MD



Leadership



Andrew Weil, MD

Founder and Director, Clinical Professor of Medicine and Public Health, Jones-Lovell Endowed Chair in Integrative Rheumatology



Victoria Maizes, MD

Executive Director, Professor of Clinical Medicine, Family and Community Medicine and Public Health



Tieraona Low Dog, MD

Director of the Fellowship, Clinical Associate Professor of Medicine



Hilary McClafferty, MD, FAAP

Director of Pediatric Integrative Medicine in Residency, Interim Director of the Fellowship, Assistant Professor of Clinical Medicine and Pediatrics



Esther M. Sternberg, MD

Director of Research, Director, Institute on Place and Wellbeing, Professor of Medicine



Randy Horwitz, MD, PhD

Medical Director, Director of Integrative Medicine Distinction Track, Associate Professor of Clinical Medicine



Patricia Lebensohn, MD

Director of Integrative Medicine in Residency, Professor of Clinical Family and Community Medicine



Kieran Richardson, MS

Director of Operations



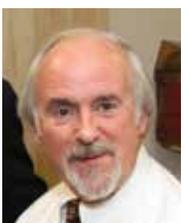
Kenneth R. Pelletier, PhD, MD (hc)

Director of Corporate Health Improvement Program, Clinical Professor of Medicine, Family Medicine and Public Health



Molly K. Burke, MFA

Director of Online Education



Robert L. Crocker, MD

Director of Strategic Clinical Planning and Implementation, Clinical Assistant Professor of Medicine

Faculty Honors & Awards

Center directors, **Drs. Victoria Maizes, Randy Horwitz, and Patricia Lebensohn** were ranked among the 2014 Best Doctors in America. This prestigious national list, compiled for more than 20 years by Best Doctors, Inc., is based on a biennial survey of tens of thousands of leading physicians who were asked whom they would go to for treatment in their own specialty.

Randy Horwitz, MD, PhD – Elected Chair, American Board of Integrative Medicine.

Victoria Maizes, MD – Recipient of the 2014 Public Voices Fellowship. In Tucson, Public Voices is a partnership between the UA College of Social and Behavioral Sciences, the Women's Foundation of Southern Arizona, and Ann W. Lovell, president of the David and Lura Lovell Foundation and executive director of the Valley Foundation. The Public Voices program is run by the OpEd Project and held at institutions across the country.

Esther M. Sternberg, MD – Appointed by the U.S. Department of Health & Human Services to the position of Member, Board of Regents, National Library of Medicine.



Clinical Care

Leading the transformation of health care delivery, the Center established a model for IM primary care clinics that can be replicated nationwide. The University of Arizona Integrative Health Center (UAIHC) is designed with an emphasis on wellness and provides a unique patient-centered environment.





University of Arizona Integrative Health Center—Phoenix.

University of Arizona Integrative Health Center—Phoenix

At UAIHC—Phoenix, patient-members receive individualized, comprehensive primary care with a strong focus on personal empowerment, prevention, self-care, and optimal health.

Key points include:

- » Founded on IM philosophy and principles;
- » A hybrid payment model that accepts insurance reimbursement and charges small member fees;
- » A Health Partnership Agreement;
- » A team care model in which all practitioners work together;
- » Health coaches to aid individuals in making and sustaining lifestyle transformation;
- » Technology to increase efficiency and patient access;
- » Educational classes to increase patient satisfaction and improve outcomes; and
- » IM health outcomes and cost effectiveness research.

Under the leadership of Dr. Heidi Rula, Director and Fellowship alumna, and managed by District Medical Group, UAIHC—Phoenix enrollment continued to grow in 2014 with new patient appointments reaching capacity. Our innovative model embodies delivery of IM practices in concert with a unique business plan. Conventional care is covered by standard insurance reimbursement combined with monthly patient membership fees for additional integrative services (e.g., acupuncture, chiropractic care, mind-body therapies, nutritional evaluations, health coaching, and wellness groups in Tai Chi and yoga). Membership is open to the public and several insurance plans are accepted. In addition, employees of Maricopa County and the Salt River Project (a primary public utility company in Arizona) may choose UAIHC for their primary care.

A three-year study funded by the Adolph Coors Foundation is tracking outcomes to assess UAIHC impact on integrative patient care and cost effectiveness (See IMPACT, page 13, for details).

Future IHC Development

WHAT PATIENT-MEMBERS ARE SAYING

"I joined the Integrative Health Center in December of 2013. Since that time, I have been able to replace one of my prescription medications with a natural supplement. The education I have received from my physician, Dr. Rula, as well as the medical staff at IHC has been instrumental in the realignment of my personal health care path. Is the path easy? No, it is not. I have gotten off track a number of times, but then

A life-changing experience

again, I did not get into my current health and eating habits overnight. I understand that, just like everything else in life, it takes work. The reinforcement of the medical professionals at IHC has helped me reach milestones and meet goals. Joining the center has been a life-changing experience for me. This approach to health care makes sense, and I sincerely hope it becomes the standard of our future."

Become a Patient-Member

UAIHC-PHOENIX

To schedule an appointment:

Tel: (602) 470 - 5577

Email: info@azintegrativeclinic.org

Web: www.ihc.arizona.edu

In 2014 the Center, the UA College of Medicine, and the UA Health Network (UAHN) formally agreed to develop the University of Arizona Integrative Health Center in Tucson (UAIHC-Tucson). In 2015 UAHN will transition to Banner Health Network (BHN) whose leaders are excited about this innovative new model of care.

The Center and BHN will open and operate UAIHC-Tucson together. A potential lease site has been identified at Hacienda del Sol and River Road. A new 15,000 square foot building will be built to house the clinic and the Center's administrative offices. Ground breaking is set for spring 2015 with a target opening for UAIHC in early 2016.

Based on our successful Phoenix model, UAIHC-Tucson is designed for patients to receive individualized, comprehensive primary care with a strong focus on personal empowerment, prevention, self-care, and optimal health. Patients will have access to an IM-trained primary care physician, a nutritionist, a health coach, an acupuncturist, a manual medicine specialist, a mind-body/stress

To receive information on UAIHC and the latest topics on integrative primary care, join our newsletter list at www.ihc.arizona.edu.

specialist and others. The same services, classes, and programs as in Phoenix will be offered. A hybrid payment model accepts insurance reimbursement and membership fees to cover the cost of services and practitioners not covered by insurance.

The Center is actively seeking medium-to-large Tucson employers interested in offering their personnel integrative primary care as an employment benefit.

UAIHC-Tucson will enhance IM clinical care, education, and research by demonstrating a sustainable and replicable clinic model, providing a setting to train medical students, residents, and fellows, and serving as a site for further outcomes research.

In coming years, the Center and BHN hope to expand our clinical operations beyond this first Tucson clinic to develop additional sites in Pima County and around the state.

DEVELOP AN INTEGRATIVE HEALTH CENTER IN YOUR AREA

For information on developing an Integrative Health Center based on our model in your area, please contact our Consultative Service:

Robert L. Crocker, MD

Director of Strategic Clinical Planning and Implementation
crocker@email.arizona.edu

Consultative Clinic in Tucson

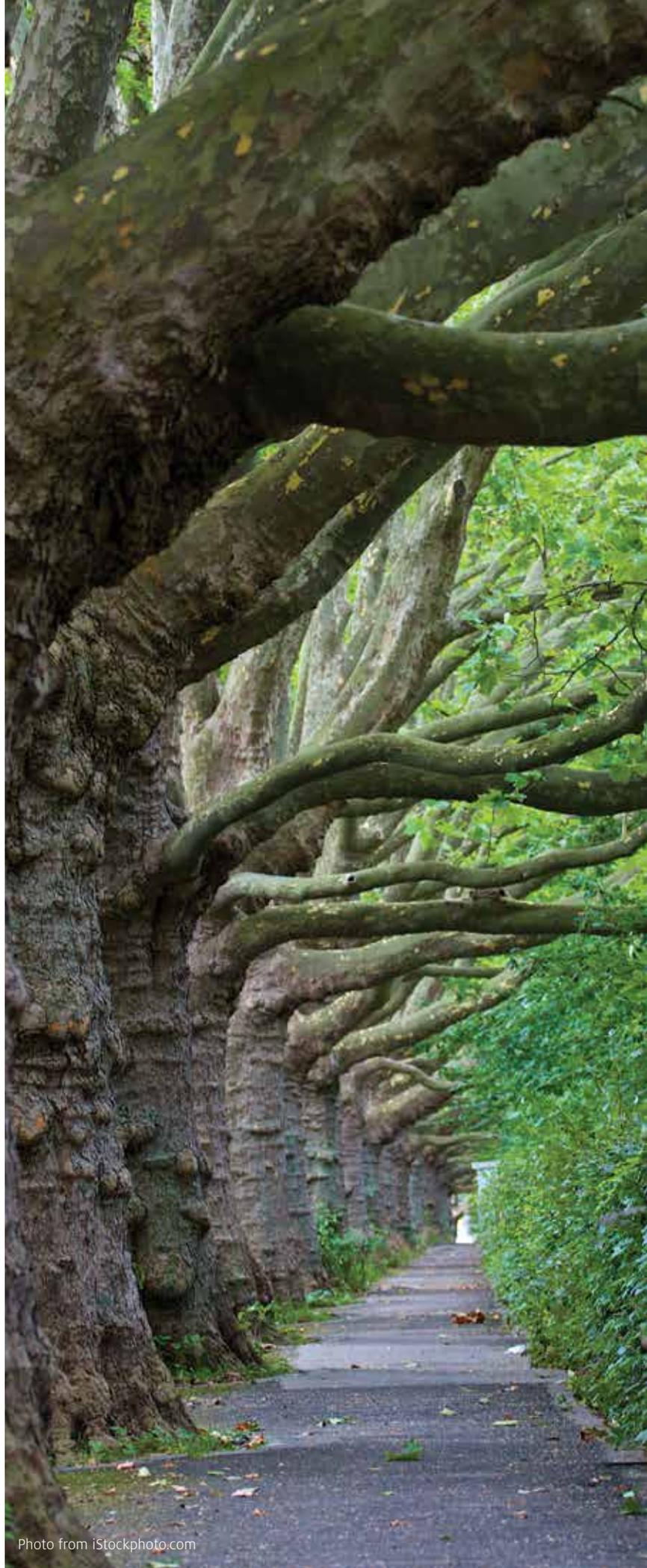
While development of UAIHC–Tucson moves forward, the Center continues to operate a separate consultative clinical practice in Tucson.

Our doctors see patients seeking preventive care recommendations or treatment options for severe and chronic conditions. Patients are encouraged to work in partnership with their Center physician to design a treatment plan with the goal of overall wellbeing.

To schedule an appointment with University Health Connection:

Tel: (520) 694 – 8888 ext.500 or
(800) 524 – 5928 ext.500

Web: www.azcim.org/clinic



Research

The Center's research program, led by Esther M. Sternberg, MD, continues at the forefront of IM scientific inquiry. In 2014 we broadened our partnerships with other university departments, as well as national and corporate research programs, to further develop and extend our scope of clinical outcomes research. This team approach leads the discipline by converting basic science findings to IM practice and validating the effectiveness of our educational programs.





Researchers at the University of Arizona Institute on Place and Wellbeing monitor test subjects' stress response during periods of work spent in each of two different office spaces. They are working to determine the effects of the built environment on health and wellbeing.

University of Arizona Institute on Place and Wellbeing

Approved by the provost and the vice president for research in 2014, the University of Arizona Institute on Place and Wellbeing (UAIPW) links the Arizona Center for Integrative Medicine, the College of Medicine, and the College of Architecture, Planning, and Landscape Architecture in a partnership unique in the nation to study the impact of the built environment on health and wellbeing.

Using leading-edge mobile and non-invasive health devices, many currently in development at the Center (See Nano-Biology, page 14) and other UA laboratories, the Institute will link people's health and wellbeing responses to features of the environment to which they are exposed. These methods will also be applied to measure the impact of complex IM interventions on health, wellbeing, and disease prevention.

Environment plays an important role in prevention.

Additionally, this research will inform the creation of healthy environments of all types and scales—hospitals, office buildings, schools, and homes, as well as urban design. It will change the landscape of health care to include human health and wellbeing outcomes in standards for green and sustainable design.

This is the new frontier of integrative health, where attention to the environment plays an important role in prevention and facilitating behaviors that enhance health (e.g., exercise and meditation).

This year UAIPW received its first major contract from the U.S. General Services Administration to measure the impact of the built environment on the health and wellbeing of

federal workers in Washington, DC. We also received private funding for research that tracks health, wellbeing and spirituality responses to a desert sanctuary environment on Tucson's Tumamoc Hill.

In addition to this innovative research, UAIPW will train the next generation of health, design, and environmental professionals to implement this new vision of human health.



2014 Presentations:

Esther M. Sternberg, MD, Co-Chair and panelist: *Impact of Green Design on Health*. American Institute of Architects Design & Health Summit, Washington, DC, April 23, 2014.

Esther M. Sternberg, MD, General Services Administration Project Briefing: *The Impact of Green Design on Health*. Office of the Surgeon General, Washington, DC, November 6, 2014.

Esther M. Sternberg, MD, Panelist: *Human Connection: the Roles of Materials, Human Performance, and Research Translation in Health-Centered Buildings—Impact of Green Design on Health & Wellbeing*. National Institutes of Health, Washington, DC, November 10, 2014.

Esther M. Sternberg, MD, Keynote: *Healing Spaces—The New Frontier of Green Design*. Building Health Forum, U.S. Green Building Council Northern California, San Francisco, CA, December 11, 2014.

INTEGRATIVE MEDICINE PRIMARY CARE TRIAL

Comparative Effectiveness Study of an Integrative Primary Care Clinic Model on Clinical and Cost Outcomes in an Employee Health Benefit Program

A generous grant from the Adolph Coors Foundation is funding a study at UAIHC–Phoenix, examining the health- and cost effectiveness of integrative primary care versus conventional medical care. The Integrative Medicine Primary Care Trial (IMPACT) is under the leadership of principal investigator Victoria Maizes, MD, in collaboration with senior health services researchers, economists, and health claims analysts from the Health Outcomes and Pharmacoeconomics Center at the UA College of Pharmacy.

Currently we are in the recruitment, enrollment and ongoing measurement phase of the study. More than 400 patients and 10 staff members have enrolled to date, with new study participants being added weekly.

Improvements in lifestyle behaviors are being tracked and medical records data including lab results, body weight and BMI are being gathered. Economic data reflecting care costs and employer health insurance claims (for patients whose employers have an agreement with UAIHC to participate in the study) will be assessed.

In addition IMPACT invites patients and practitioners to reflect on their experience of integrative care delivery. Participants are asked about the communication and shared decision-making between patients and practitioners, whether the clinic staff treats the whole person, and how well the integrative team works together in providing care that honors patient preferences.

This ground-breaking study is poised to make significant contributions to national health care policy debates. Findings will further establish the Center as an innovator of effective models of integrative primary care.

2014 Publication:

Herman P, Dodds S, Logue M, Abraham I, Rehfeld R, Grizzle A, Urbine T, **Horwitz R, Crocker R, Maizes V**. Impact – Integrative Medicine Primary Care Trial: Protocol for a Comparative Effectiveness Study of the Clinical and Cost Outcomes of an Integrative Primary Care Clinic Model. *BMC Complementary and Alternative Medicine*. 2014; 14:132.



Esther Sternberg, MD, speaks to the Fellows on the healing power of built spaces.

"In combination, our research is pushing the boundaries of personalized medicine, developing methods and devices to track physical health and emotional wellbeing in real time and real place. These methods will be widely applicable, across many settings and interventions, from integrative medicine approaches to changes in the built environment. Our ultimate goal is to collect data that will change the landscape of health and wellbeing, to prevent illness and foster healing. The strides made this year by the Institute on Place and Wellbeing are already influencing policy and standards for green design, through briefings to federal government and private sector industry leadership, including the Office of the Surgeon General, other federal agencies, and the U.S. Green Building Council."

—**Esther M. Sternberg, MD**

Nano-Biology: From Basic Research to Technology

The Center is leading the nation in a unique and exciting area of research to develop wearable monitoring sensors that will measure human stress and immune response. Funded by the United States Air Force Research Laboratory and the Nano-Bio Manufacturing Consortium, an industry-academia partnership, this project's goal is to develop methods to measure stress and immune molecules in sweat. The results will help determine the best method for developing a wearable sensor system. Once fully devel-

oped, this technology will be applied to detect the effects of integrative interventions on immune and stress response non-invasively in sweat, without the need to draw blood.

2014 Presentation:

Analysis of Selected Biomarkers in Human Eccrine Sweat. Presented by **Min Jia, PhD**, at the Nano Bio Manufacturing Consortium Conference, Phoenix, AZ, Feb. 4, 2014.

Medical Education Research

ENVIRONMENTAL MEDICINE CURRICULUM EVALUATION

Effect of an Integrative Medicine Course on Knowledge Base and Practice Patterns

This online course was designed to improve knowledge, attitudes, and beliefs about environmental medicine, a key area of IM education. The course uses a case-based, interactive format on assessment, prevention, and treatment of environmental health issues. Didactic information is delivered through narrative text, video lectures, clinical algorithms, and internet links to reference resources and authoritative documents.

Generous funding from the Onota Foundation and Blackstone Ranch supports a study currently in its final stage of data analysis and manuscript preparation. Led by Victoria Maizes, MD, the primary objectives are to test: 1) the effectiveness of an online course in improving knowledge, attitudes and beliefs of participating health care professionals, and 2) the effectiveness of the course in improving the ability of health care professionals to apply clinical skills in the routine care of patients.

2014 Presentations:

McClafferty H, Brooks AJ, Koithan M, Cook P, Maizes V. *Evaluating an Online Environmental Health Course for Nursing and Other Healthcare Professionals.* Poster presented at the Arizona Nursing Association Symposium, Phoenix, AZ, October 24, 2014.

Maizes V. *Evaluating an Online Environmental Health Course for Healthcare Professionals: An Integrative Approach.* Webinar presented to The Collaborative on Health and the Environment, September 30, 2014.

INTEGRATIVE MEDICINE IN RESIDENCY (IMR) CURRICULUM EVALUATION

In six years the IMR program has grown from its launch at eight family medicine pilot sites to 55 residencies in the U.S., Canada, and Taiwan (See map, page 24). An extensive, multi-year evaluation has demonstrated the program's effectiveness in improving resident knowledge and clinical practices, and led to this nationwide expansion. In addition, behavioral measures such as resident empathy, burnout, depression, anxiety and mindfulness have been evaluated. Results have been published annually in professional journals and multiple presentations and posters have been given at national conferences and meetings.

2014 Publication:

Lebensohn P, Dodds S, Brooks AJ, Cook P, Guerrero M, Sierpina V, Teets R, Woytowicz J, Maizes V. Increasing Resident Recruitment Into Family Medicine: Effect of a Unique Curriculum in Integrative Medicine. *Explore.* May/June 2014; 10(3):187-192.

2014 Presentation:

Brooks AJ, Dodds S, Cook P, Maizes V, Lebensohn P. *Comparison of Residents and Medical Students on Measures of Well-Being and Lifestyle.* Poster presented at the 2014 International Research Congress on Integrative Medicine & Health, Miami, FL, May 13-16, 2014.

PEDIATRIC INTEGRATIVE MEDICINE IN RESIDENCY (PIMR) CURRICULUM EVALUATION

In its second year at five pediatric residency programs throughout the country (See map, page 24), the 100-hour PIMR curriculum is being evaluated in a study involving 330 resident participants. Under the direction of Dr. Hilary McClafferty, principal investigator, the effectiveness of the PIMR in enhancing residents' integrative pediatric medical knowledge, empathy and patient care, and successful completion of the curriculum is being evaluated.

In addition, residents are being assessed on their own wellness and wellbeing, an area of vital importance as studies show that physician self care is directly related to how well they can help parents and children improve their own health.

Measurement methods include: questionnaires, testing of medical knowledge throughout the online curriculum, interviews with site directors and coordinators, and collection of site-specific residency data.

2014 Publication:

McClafferty H, Brown OW, Vohra S, Bailey ML, Becker D, Culbert TP, Sibinga E, Zimmer M. Physician Health and Wellness. *Pediatrics.* 2014;134:830-835.

Selected Citations & Board Participation

The following citations represent a small portion of the research publications and advisory board participation by Center faculty in 2014.

Publications:

Church, D, **Brooks, AJ**. *CAM and energy psychology techniques remediate PTSD symptoms in veterans and spouses*. *Explore* 2014; 10:24-33.

Skeath P. *Increasing the effectiveness of palliative care through integrative modalities: conceptualizing the roles of animal companions and animal-assisted interventions*. *Handbook on Animal-Assisted Therapy and Interventions: Theoretical Foundations and Guidelines for Practice*, A.H. Fine (Ed.), (4th ed., in press). New York: Academic Press / Elsevier.

Advisory Boards:

Esther M. Sternberg, MD: American Institute of Architects, Design & Health Leadership Group Advisory Committee, and

Program Committee International Research Congress on Integrative Medicine.

Hilary McClafferty, MD, FAAP: Chair, American Academy of Pediatrics Section on Integrative Medicine, and

Guest Editor, Special International Edition, *Pediatric Integrative Medicine: An Emerging Field in Pediatrics*, *Children* 2014.

Min Jia, PhD: Editorial Board, *New Horizons in Translational Medicine*.



Education

Our educational programs have grown, positioning the Center as the world leader in IM curricula delivery. We offer courses that span the continuum of professional medical education, resulting in Center-trained IM practitioners serving in hospitals and clinics nationwide and internationally, as well as becoming IM leaders in their own communities.



National Center for Integrative Primary Healthcare

The Center achieved major recognition in 2014 with the award to lead a federally funded collaborative project to develop the National Center for Integrative Primary Healthcare (NCIPH).

The Center and the Academic Consortium for Integrative Medicine & Health, in cooperation with the Health Resources and Services Administration, created NCIPH to advance the incorporation of competency- and evidence-based integrative health curricula and best practices into primary care education and practice. The most important impacts of this three-year project will be the development of a set of competencies and educational materials appropriate for use across the entire interprofessional spectrum of primary care practitioners, and the emphasis on delivering integrative primary care to underserved populations.

NCIPH GOALS:

1. Establish a national interprofessional leadership team.
2. Develop core Integrative Health competencies for interprofessional primary care teams.
3. Develop a 20-40 hour interprofessional Integrative Health online curriculum for primary care educational programs—Foundations in Integrative Health.
4. Create an accessible and interactive online infrastructure that will house:
 - Integrative Health curricula;
 - Best Integrative Health practices for primary health care professions;
 - Links to partner organizations and Integrative Health resources for health care professionals; and
 - A patient portal.
5. Develop patient education Integrative Health materials and facilitate access to Integrative Health practitioners.

“The Center has been educating leaders in integrative medicine for 20 years now, and we are so pleased to be validated by this award as an authority that will ultimately affect how primary care is delivered. Our ultimate goal in establishing the NCIPH is to create effective interprofessional teams that will use integrative medicine to help eliminate health disparities in primary care and promote healthy communities.”

—**Patricia Lebensohn, MD**, NCIPH principal investigator, director of the Integrative Medicine in Residency program, and UA professor of family and community medicine.



Patricia Lebensohn, MD.



Graduates of the 2014 Summer class of the Fellowship in Integrative Medicine applaud class speaker Anu French, MD.

Fellowship in Integrative Medicine

The Fellowship is the cornerstone of the Center's educational programs. Beginning in 1997 with just four Fellows onsite in Tucson, this inaugural IM training program has grown to accommodate more than 250 Fellows in distance-learning training at any one time.

The Fellowship teaches a new way of caring for patients, with emphases on the individual, prevention, and wellness in addition to disease and treatment. Nationally recognized experts and faculty from a variety of disciplines, modalities and philosophies created and teach in the two-year, 1000-hour program.

The Fellowship curriculum also includes three separate residential weeks conducted in Tucson that develop a sense of community among the Fellows, provide experience with IM modalities, and offer a new perspective on practitioner self care.

The program accepts practitioners of every specialty and is open to MDs, DOs, Nurse Practitioners, Physician Assistants, PharmDs, and Certified Nurse Midwives.

2014 Publication:

Ring M, Brodsky M, **Low Dog T**, Sierpina V, Bailey M, Locke A, Kogan M, Rindfleisch JA, Saper R. Developing and Implementing Core Competencies for Integrative Medicine Fellowships. *Acad Med.* 2014; 89(3):421-428.

Fellowship Alumni

After starting with only four Residential Fellows in 1997, in 2014 there were 274 active Fellows across four Fellowship classes. Current Fellows and Alumni are represented nationally as well as internationally. And this year we celebrate the milestone of having a community of more than 1,000 Fellowship Alumni.

1-5 Fellows

Alaska
Arkansas
Delaware
District of Columbia
Hawaii
Idaho
Indiana
Kansas
Montana
Nebraska
Nevada
North Dakota
Oklahoma
Rhode Island
South Dakota
Vermont
Wyoming

6-10 Fellows

Alabama
Iowa
Kentucky
Louisiana
New Hampshire
Tennessee
Utah

11-20 Fellows

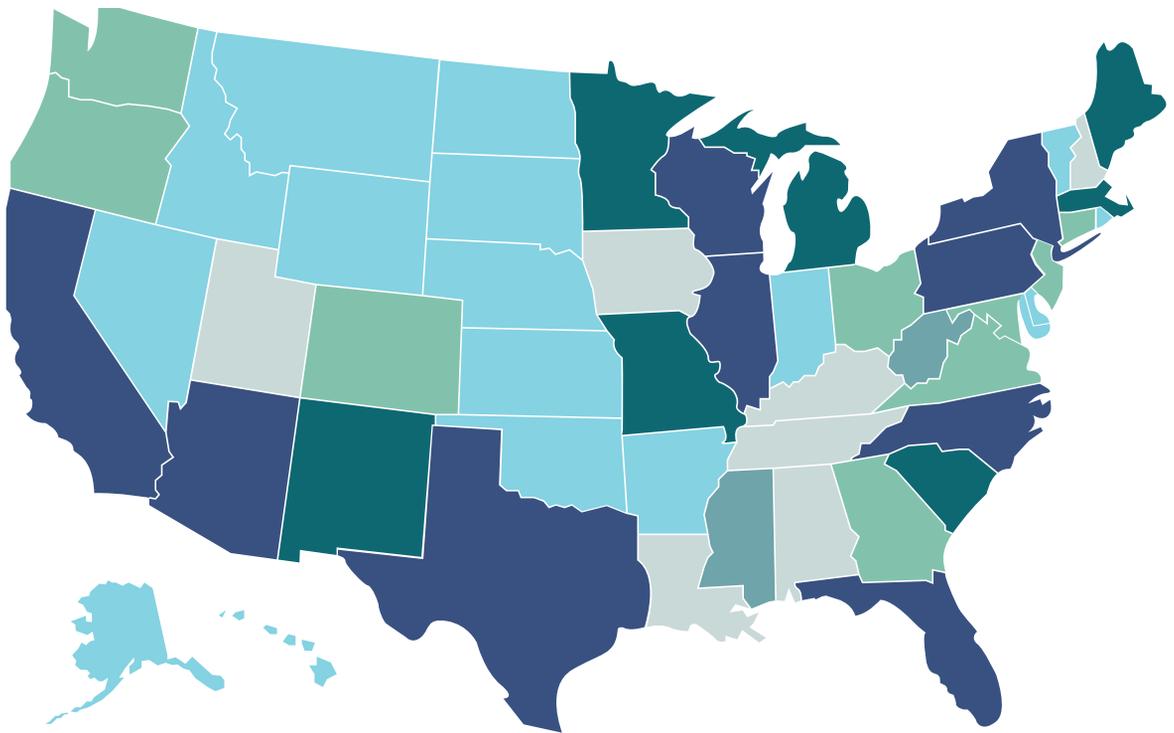
Maine
Massachusetts
Michigan
Minnesota
Missouri
New Mexico
South Carolina

21-30 Fellows

Connecticut
Georgia
Maryland
New Jersey
Ohio
Oregon
Virginia
Washington

31+ Fellows

Arizona
California
Florida
Illinois
New York
North Carolina
Pennsylvania
Texas
Wisconsin



Australia, Bermuda, Brazil, Cambodia, Canada, Germany, Greenland, India, Israel, Italy, Japan, Korea, Martinique, Mexico, Netherlands, Nigeria, Phillipines, Poland, Puerto Rico, Qatar, Saudi Arabia, South Korea, Taiwan, Thailand, Turkey, United Arab Emirates, United Kingdom, Virgin Islands

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INTERNATIONAL
FELLOWSHIP
ALUMNI

1008 Total Alumni

SENATOR HARKIN AT GRADUATION

In October, U.S. Senator Tom Harkin (Iowa) was awarded an Honorary Fellowship from the Center in recognition of his long-time support of preventive health care, wellness, and IM. His leadership has paved the way for significant policy improvement and receptivity to integrative practices during the past 20 years. On this occasion he joined faculty, staff, and the Fellowship in Integrative Medicine graduating Class of 2014 Summer—57 practitioners from 27 states and six countries—in celebrating the Center’s work and achievements in the transformation of health care.



Hilary McClafferty, MD, Andrew Weil, MD, Senator Tom Harkin (Iowa), and Victoria Maizes, MD.

“So, I salute the graduating Fellows here today for being pioneers in your own right, for having the imagination to swim outside the mainstream, the courage to buck the allopathic medicine establishment. And I see so many here from different countries... fantastic! Well, I want to say that you’re in the vanguard of change, that’s never easy. It’s sometimes said that in times of great change, there are two kinds of leaders: there are those that usher out the old and those that usher in the new. Those that usher out the old are called “Pallbearers.” Those that usher in the new are called “Torchbearers.” I feel I am among a group of torchbearers here today and you should be very, very proud of that.” —**Senator Tom Harkin**



Senator Harkin congratulates Summer 2014 Fellowship graduate Robert Simpson, MD.

BOARD CERTIFICATION

In November 2014 the newly created American Board of Integrative Medicine offered its initial board examination. Results will be announced in February 2015.

Board certification establishes a standard of knowledge, skills, and mastery of the specialty for all who intend to present themselves as IM practitioners. This will help patients discern who truly has training and expertise in IM.

The Center’s goal is to have all physician graduates of our Fellowship become board certified.

For more details about eligibility and exam description, visit www.aboim.org.

Dr. Tieraona Low Dog Tribute

This year our dear colleague and beloved friend, Dr. Tieraona Low Dog, retired from the University of Arizona and her role as Director of the Fellowship. Tieraona first began teaching in the fellowship in 2000 and officially joined the Center faculty in 2005 bringing IM knowledge and teaching skills deeply appreciated by all who worked with her.

Under Dr. Low Dog's leadership, the Fellowship grew to more than 1000 graduates globally. She is noted for an encyclopedic memory and her superb mentorship ability. Countless fellows consider her their finest teacher.

In addition to her contributions to the Center, Tieraona has been recognized and sought after for national service. For example, in 2000 she was appointed to the White House Commission of Complementary and Alternative Medicine; she served as Chair of the United States Pharmacopeia Dietary Supplements and Botanicals Committee; and most recently she helped found the American Board of Integrative Medicine.

We are so honored to have had Tieraona as a colleague and friend. We will miss working closely together and wish her well in her future endeavors.



Tieraona Low Dog, MD, teaching at a Fellowship residential week.

“Dr. Low Dog has influenced hundreds of our Fellows, inspiring them with her wealth of knowledge and stellar ability as a teacher. She has been a pillar of our core faculty.”

—Andrew Weil, MD

“Tieraona has been a visionary national and international leader in the field of Integrative Medicine, recognized by all for her exemplary teaching. At the Center she has been an incredibly valued member of our team skillfully leading the fellowship to its current eminence and helping to shape all our other online educational programs.”

—Victoria Maizes, MD

“Tieraona is what IM can and should be. She brings to holistic medicine both an evidence-based approach and also common sense and practical experience.”

—Will Lane, MD, Fellowship Class of 2010

“Tieraona made things just a little extra special. . . like spicy hot chocolate!”

—Krishna Desai, MD, Fellowship Class of 2013



Shandis Price, MD, and Angela Barnett, MD, at the Integrative Medicine in Residency faculty development meeting.

Integrative Medicine in Residency

In 2008 Integrative Medicine in Residency (IMR) began as a pilot program at eight sites under the directorship of Patricia Lebensohn, MD. Today, 951 residents are enrolled in, and 346 have graduated from, the 200-hour online IM curriculum at 55 primary care residency sites in the U.S., Canada, and Taiwan.

The training addresses important topics lacking in conventional graduate medical education and serves as a faculty development tool.

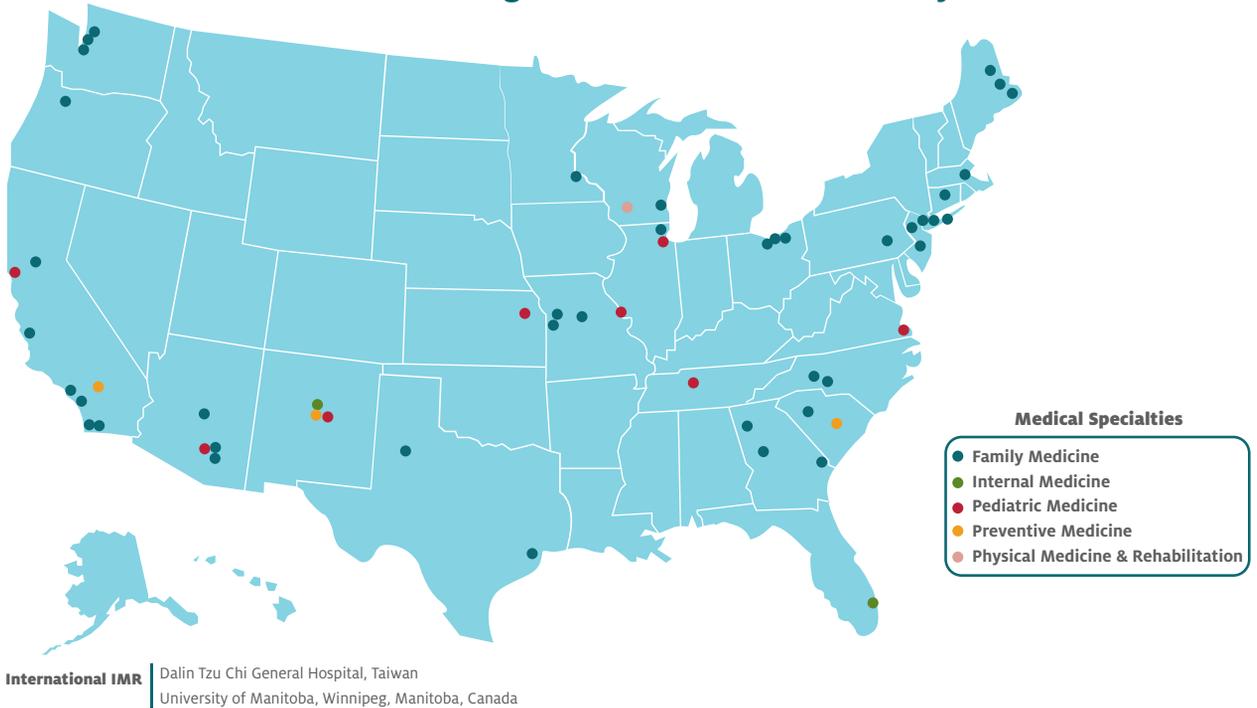
Designed initially for family medicine residencies, the IMR has expanded to include internal medicine, preventive medicine, and physical medicine and rehabilitation residencies. The content emphasizes integrative approaches to prevention and chronic illness management and physician self-care.

The IMR is a crucial component along the continuum of IM education that the Center is developing for all phases of physician training—from medical students, to residents, to fellows, to practicing clinicians—bringing IM into mainstream medical education.

Moving forward, our newest sites are Dalin Tzu General Hospital in Chiayi, Taiwan, a 900-bed hospital that will pilot IMR in their family medicine residency, and Banner Good Samaritan Medical Center in Phoenix, Arizona piloting IMR in their OB/GYN residency program. Also in development is IMR expansion into psychiatry at the University of Arizona.

In addition, our “Prevention & Wellness: An Integrative Approach” online course is being used by fourth-year medical students at nine participating IMR sites in 2014. It provides foundational IM knowledge as well as measurements for self care and wellbeing.

Integrative Medicine in Residency and Pediatric Integrative Medicine in Residency



Pediatric Integrative Medicine in Residency

Established to address the need for IM education in pediatrics, the Pediatric Integrative Medicine Residency (PIMR) is in the second year of its pilot phase. Modeled after the award-winning IMR, its 100-hour curriculum embeds into pediatric resident education, and incorporates evaluation and faculty development tools.

The online, interactive curriculum includes: nutrition, mind-body medicine, integrative approaches to mental health, sleep, whole medical systems such as traditional Chinese medicine and naturopathy, physical activity, effective behavior, and lifestyle transformation. A strong emphasis is also placed on physician health and wellness.

Under the leadership of Director Hilary McClafferty, MD, FAAP, the national pilot launched at: 1) Lucile Packard Children's Hospital at Stanford University, 2) Comer Children's Hospital at the University of Chicago, 3) University of Kansas, and 4) Eastern Virginia Medical School/Children's Hospital of the King's Daughters, joining Diamond Children's at the UA, the inaugural PIMR site. Two additional non-pilot sites (Cardinal Glennon Pediatrics – DePaul Health Center and

Vanderbilt University) have become early adopters of the program.

As with IMR, faculty leaders at each site receive mentorship development training and resources to evaluate resident progress. Instructional materials include interactive case studies, internet links, streaming videos, and embedded resident evaluation measures. Technical support and software updates are provided by the Center.

PIMR has more than 500 pediatric residents currently enrolled who will become IM practitioners from the beginning of their careers. The first cohort will graduate in 2016. Upon completion of training, each pediatrician serves approximately 2000 children per year. Therefore, once established in practice, these physicians will deliver IM care to one million children.

The David C. and Lura M. Lovell Foundation, the Gerald J. and Rosalie E. Kahn Foundation, the Weil Foundation, and the John F. Long Foundation, as well as numerous individual donors, generously provided PIMR funding in 2014.

Integrative Medicine Elective Rotation

Integrative Medicine Elective Rotation (IMER) is a month-long experiential introduction to IM for medical students and residents.

The Center provides this course twice a year, free of charge to students across the nation and around the world, thanks to a gift from the Louis & Rachel Rudin Foundation. A total of 59 residents and medical students participated in the 2014 rotations.

The potential influence of this IM introduction is evident as eight IMER alumni enrolled in the Fellowship this year.

“Thank you for this rotation. It is healing my soul. I’m very happy and inspired by the lecturers and other students in the group. This rotation thus far has exceeded my expectation. I believe that workshops like this produce the most well-rounded, thoughtful and compassionate physicians.”



Gulshan Sethi, MD, teaches IMER students about the power of laughter therapy.

Integrative Medicine Distinction Track

May 2014 saw graduation of the first Integrative Medicine Distinction Track (IMDT) class with five students individually recognized by the dean of the College of Medicine.

Nationally, IMDT is the first robust IM program within the medical school. It brings IM philosophy and practice to the earliest stages of medical school education. Coursework, participation in patient conferences, Grand Rounds presentations, and a one-month IMER give students the opportunity to study IM in a meaningful and substantial way throughout their four years of medical school.

There is growing interest in IM among medical students entering the UA in both Tucson and Phoenix, resulting in almost 20% of the 2017 class enrolling in IMDT.

“As someone who is passionate about integrative medicine, I found the Distinction Track to be one of the key attractive features for attending UA COM in Tucson. The modules have exceeded my expectations in terms of the quality and breadth of information provided. I’ve also greatly enjoyed the patient conferences and the discussion of how to holistically treat the patient. I greatly look forward to the elective in my 4th year!”

—Wendy Reeve, Class of 2017



The first graduating IMDT class and Center faculty gather at Dr. Lebensohn's home for a celebratory dinner. Photo courtesy of Dr. Randy Horwitz.



Digital tools for distance learning. Photo by David Sanders.

TECHNOLOGY AT THE FOREFRONT OF MEDICAL EDUCATION

The Center has utilized distance learning to become the world leader in IM education. We offer medical professionals and the general public ten online programs/courses, and over the last decade our enrollees have completed a cumulative total of more than 15,000 courses. Our online programs have grown to handle more than 20,000 active accounts and experience an average of 700 user sessions per day.

We are committed to continually enhancing our technological capabilities to adjust to the ever-expanding market of mobile devices. This year we redesigned our site to automatically respond to the devices our learners use to browse the web. This responsive design allows learners to use any device (i.e., laptops, tablets, and smartphones), and the website automatically adjusts its interface to accommodate the varying screen sizes and the ways people naturally use those devices.

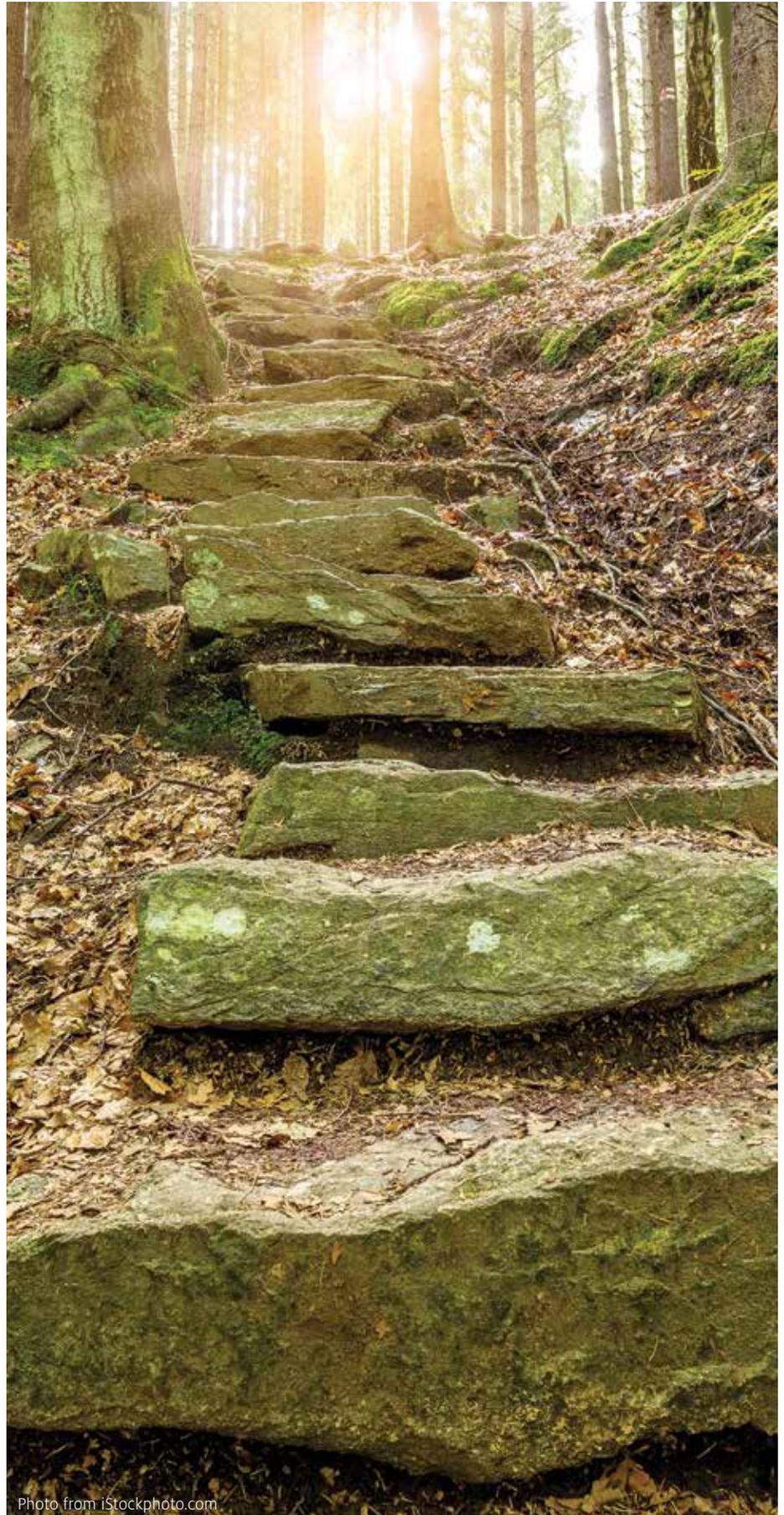


Photo from iStockphoto.com



IHeLp learners explore Ayurvedic spice blends during the first IHeLp residential retreat. Photo by David Sanders.

Lifestyle Transformation

A natural progression for the Center is to expand training to all health care professionals. Our new Lifestyle Transformation (LT) initiative that began in 2014 does just that. The Integrative Health & Lifestyle program (IHeLp) is a six-month, interprofessional program that consists of approximately 250 hours of engaging online curriculum and a four-day educational retreat in Tucson. IHeLp is open to licensed, registered, or certified health professionals. It gives them a foundational knowledge of integrative health care that addresses the whole person and

emphasizes the importance of lifestyle on health and wellbeing.

Students apply their learning in nutrition, sleep, mindfulness, physical activity, and more, using self-care activities and team sharing. Additional curriculum addresses motivational interviewing and common complementary and alternative approaches like traditional Chinese medicine, as well as manual and energetic therapies.

At the end of its first year, 67 IHeLp graduates from all over the country (and Scotland and Costa Rica, too!) are changing the way health care

is practiced and empowering their patients, families, and communities to live healthier lives.

Development of IHeLp was made possible, in part, thanks to generous contributions from the Blythe Brenden-Mann Foundation.



Blythe Brenden-Mann
Foundation

"I have found the IHeLp program to be exhilarating! I have learned so much in such a short amount of time and it's all applicable. I am keeping lists of ideas on how to apply my new knowledge and skills upon completion of the program and as I review this list I am so inspired. This program is going to provide me with the tools I have wanted and the credibility of an excellent institution to create the path of my dreams. I don't want it to end!"

—**Kristin Sheldon, RN**, IHeLp Class of 2014 Summer



The IHeLp Class of Fall 2014 gets hands-on experience during retreat week.

How can a health professional motivate a patient to make the lifestyle changes taught in all our educational programs?

The art and science of Integrative Health (IH) Coaching is a growing field of practice that supports people in making real, sustainable change. This advanced certification program is open to IHeLp and Fellowship graduates. Participants learn about principles, strategies, process, and key communication skills inherent to coaching via online coursework. They actively build their IH Coaching skills in small online groups and 1:1 mentor-supervised training

sessions, as well as at two live training events in Tucson. Program applications opened Fall 2014 for the inaugural class launching in February 2015.

The addition of IHeLp and IH Coaching graduates will support the integrative health care team model and provide more opportunities for patients to experience the integrative care they want.

What Is Taught

Intro to Integrative Health,
Stress & Mind-body, Sleep & Dream Health,
Aromatherapy, Botanicals,
Spirituality & Health, Healing relationships,
Nutrition & Supplements,
Physical Activity, Environmental Health,
Motivational Interviewing, Whole Systems,
Manual and Energy Medicine,
Mental Health,
Nutrition & Cardiovascular Health,
and more!



Nutrition & Health Conference

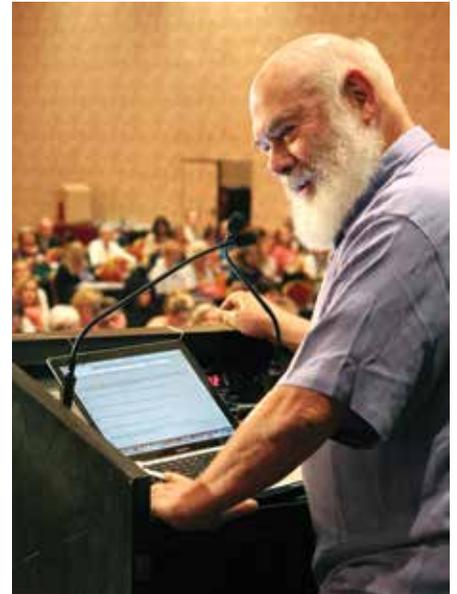
The 2014 Nutrition & Health Conference entered its second decade of providing the latest research on the effects of nutrition on health.

Held in Dallas, Texas, the 11th annual *Nutrition & Health: State of the Science and Clinical Applications* conference brought together leaders in scientific research, clinicians skilled in nutritional medicine, experts on food and agricultural policy, and innovative chefs.

Meals that demonstrate that healthful and nutritious food can also be delicious.

This year's conference paid special attention to the ongoing obesity epidemic, along with the emerging fields of human gut microbiome research, technology tools in health and physical activity, and mind-body methods for managing dietary issues.

A faculty of 37 distinguished presenters represented leading institutions around the country, including the Harvard School of Public Health, Stanford University School of Medicine, and the Washington DC-based Center for Science in the Public Interest, as well as our own University of Arizona Center for Integrative Medicine.



Andrew Weil, MD, addresses conference attendees and prepares them for a rich day of learning.



Jim Nicolai, MD (Residential Fellowship) gathers current clinical nutrition-related data for use in his integrative practice.

As always the conference included meals that demonstrate the principle that healthful and nutritious food can also be delicious. This year's meeting concluded with an engaging cooking demonstration by Dr. Weil and consulting chef Rebecca Katz.

For more conference information, visit us at www.NHConference.org, www.facebook.com/nutritionandhealth and on Twitter at [@nhconference](https://twitter.com/nhconference).

Global Outreach

These citations represent some of the many 2014 presentations on IM topics to a global community by Center faculty:

Esther M. Sternberg, MD, Keynote: *Biology of the Glucocorticoid System in Acute Stress*. Neurosciences in Intensive Care International Symposium, Pasteur Institute, Paris, France, June 12, 2014.

Robert L. Crocker, MD: Lecture, *The Impact of Transgenerational Trauma and Woundedness on Social and Emotional Wellbeing, Physical and Mental Health*. Aboriginal Employment in Health Network, West Gippsland, Warragul, Victoria, Australia, September 15, 2014.

Andrew Weil, MD: Video Lecture, *Visions of A Pioneer*, International Symposium on Integrative Medicine: Health Beyond the Cure, Hospital Israelita Albert Einstein, São Paulo, Brazil, December 2, 2014.



Rebecca Katz and Andrew Weil, MD, lead a plenary cooking demonstration, teaching attendees to craft bold, delicious and health-promoting experiences at home.

JOIN US AT UPCOMING CONFERENCES

2015 Nutrition & Health Conference
May 3-6, 2015
Arizona Biltmore Hotel
Phoenix, Arizona

2016 Nutrition & Health Conference
March 20-23, 2016
Hyatt Regency Denver at Colorado
Convention Center
Denver, Colorado

Selected Citations & Presentations

The following citations represent a small portion of the educational publications and presentations by Center faculty in 2014:

Publications:

Maizes V. *An Online Program Shapes Doctors' Minds—and Hearts*, *The Chronicle of Higher Education*, The Digital Campus 2014, April 2014; B32-33, www.chronicle.com.

Devries S, Dalen J, Eisenberg D, **Maizes V**, Ornish D, Prasad A, Sierpina V, **Weil A**, Willet W. *A Deficiency of Nutrition Education in Medical Training*, *American Journal of Medicine*, September 2014; 804-806.

Presentations:

Victoria Maizes, MD, Keynote: *Health Promotion for the 21st Century: The Role of Preconception Counseling*. Annual Student Conference for Integrative Medicine 2014/UCLA, Los Angeles, CA, March 1, 2014.

Victoria Maizes, MD, *Food for Pleasure, Vitality, and Health*. Presented at the UA College of Social and Behavioral Sciences' Downtown Lecture Series, Fox Theatre, Tucson, Arizona, November 12, 2014.



Development

For more than 20 years the support of our donors, sponsors, and partners has been the life-blood of our progress and our programs. Integrative health care is becoming a reality and we are grateful for the generosity and friendship that is making it happen.

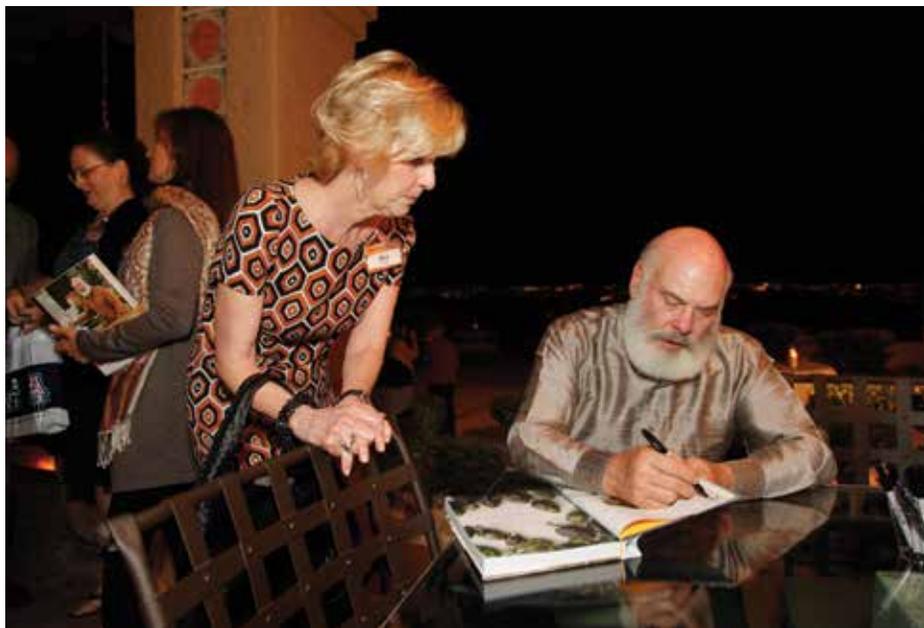
Philanthropy and Partnership

In 2014 multiple individuals, foundations, and organizations continued the long tradition of support for the Center and our work to establish integrative health practices as the new standard for care.

Their partnership and generous contributions are integral to all of our activities: opening integrative primary care centers, conducting leading-edge outcomes research, and continuing our educational leadership in integrative curricula for health professionals. A combination of private and public funding supports the launch of our programs.

Center funding comes from: 1) our economic model that builds sustainability through program subscription and licensing, 2) a hybrid reimbursement/fee structure for primary care services, 3) research grants, and 4) philanthropic support. Together these revenue sources provide the opportunity for Center growth.

We look forward to building new relationships and strengthening those with longtime associates. As always, we are guided by our partners' trust and belief in our mission to transform health care.



Ann Lovell and Andrew Weil, MD, at a Legacy Circle book signing event.

FORCE OF PHILANTHROPY

We are always grateful for the wonderful gifts we receive. This year some very generous friends chose to help us in unique ways that supported all three of our program domains:

Clinical Care: For our UAIHC-Tucson start-up campaign, several longtime donors chose to “Honor Their Mothers” with significant donations in their names. Additionally, 42 Fellowship Alumni joined a special one-time gift campaign for UAIHC.

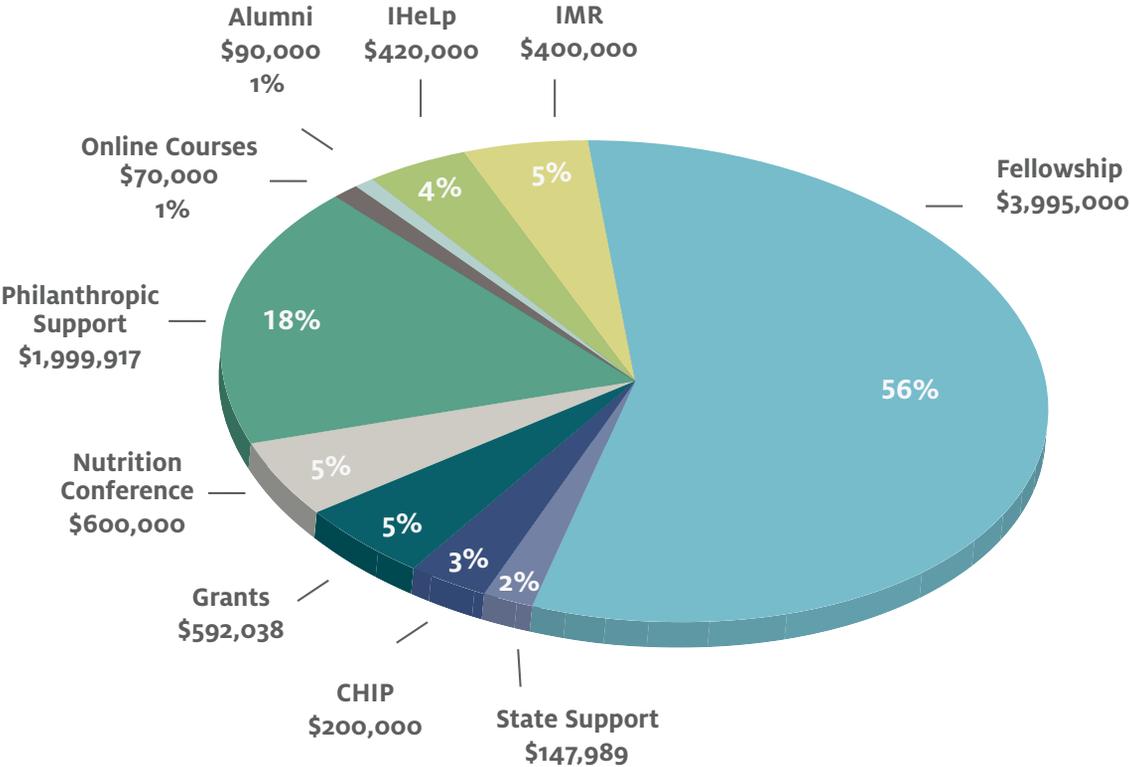
Research: Deeply interested in the importance of research, one donor contributed the funding for a pilot project designed to demonstrate physical and spiritual reactions to natural versus urban environments.

Education: A generous North Dakota philanthropist who believes in the power of IM education created a scholarship fund to aid physicians in that state who wish to pursue Fellowship training.

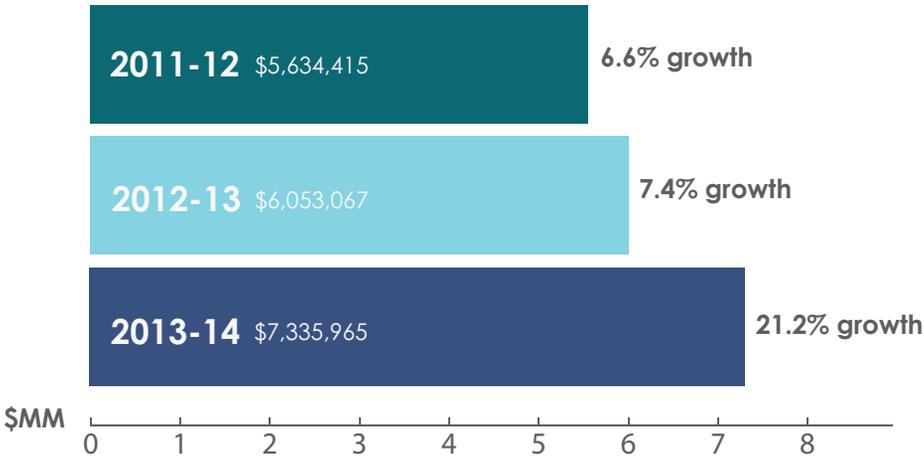
Combined, these friends contributed \$1.4 million! We hope these examples will inspire you to be creative in your giving.

Fiscal Year 2013-2014

SOURCES OF REVENUE



REVENUE GROWTH



Charitable Contributions and Grants

FOUNDATIONS

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Tao Institute of Mind and Body
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GRANTS

Private Donor Grant – *Tumamoc Hill Research Study*
The Institute for Integrative Health – *Green Road Project*
U.S. Air Force Research Labs / Nano-Biology Manufacturing Consortium – *Sweat Biomarkers for Unobtrusive Real-time Human Performance Assessment*



Exhibit and book signing by California Walnut Commission at NHC 2014.

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