



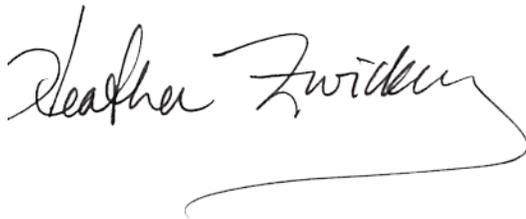
 **Helfgott**
RESEARCH INSTITUTE

advancing
the science of
natural medicine

Letter from the Director

Three years ago, we planted a seed with the hopes of growing research at the National College of Natural Medicine (NCNM). Since its inception, the Helfgott Research Institute at NCNM has experienced exceptional progress and growth. We have witnessed an exciting expansion of our faculty and staff, as well as the physical facilities of Helfgott. The student researchers continue to astound and amaze us with their passion and dedication to research. Together, the research teams have established an impressive array of studies that are sure to impact the practice of natural medicine.

This report is an opportunity for us to highlight just a few of the outstanding studies being conducted at Helfgott and to introduce you to some of the researchers who have joined our ranks. With expertise in naturopathy, Chinese medicine, acupuncture, immunology, psychology, and nutrition, Helfgott has a strong and diverse team dedicated to advancing the science of natural medicine. Our mission is to conduct rigorous, high quality research on the art and science of healing. We thank you for taking the time to get to know us.



Heather Zwickey, PhD
Assistant Professor
Director, Helfgott Research Institute



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History of the Helfgott Research Institute

NCNM is committed to a strong research program. The establishment of the Helfgott Research Institute reinforces that commitment by providing a venue to demonstrate the strengths of clinical medicine, naturopathic medicine, and classical Chinese medicine. It lays the foundation for NCNM's intellectual authority in natural healing. Furthermore, it attracts high quality researchers, faculty, and students.

The Helfgott Research Institute began in June 2003 with a donation from Donald Helfgott. Mr. Helfgott sought to make a difference in health care. He believed an investment in alternative medicine research would support a much needed change. We began by building a state of the art basic science laboratory and recruiting several leading investigators to head research projects and provide mentorship for NCNM faculty, students and residents who wish to conduct clinical studies.

Scientific collaborations have strengthened the quality of research and the resources available to investigators. Current research projects conducted by Helfgott include collaborations with Oregon Health & Science University (OHSU), Kaiser Permanente Center for Health Research, and other naturopathic schools.





Anti-Inflammatory Diet for Diabetics & Prediabetics

Pat Elmer, PhD, and her team of researchers are exploring the relationship between diet, inflammation and type 2 diabetes with their NIH-funded study of the naturopathic anti-inflammatory diet (AI diet).

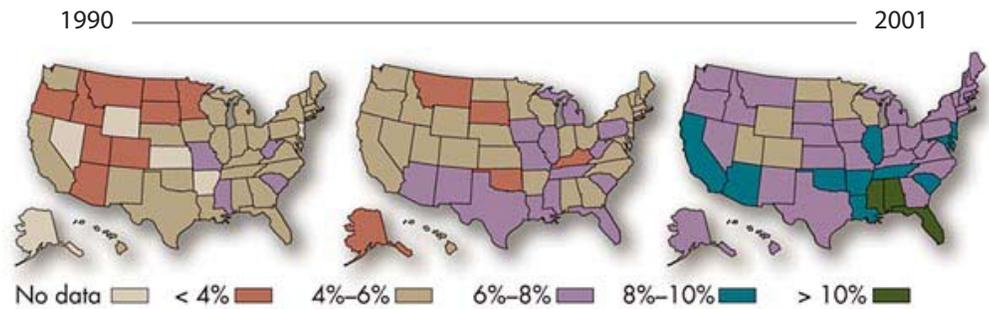
This diet is used extensively by naturopathic physicians, but this is the first time it is being put to the test in a clinical study. The AI diet contains foods such as fish, lean turkey and chicken, whole grains, beans, nuts, seeds, many vegetables and fruits. It eliminates foods that are thought to cause inflammation or allergies such as wheat, corn, soy, dairy,

red meat, nightshade vegetables, citrus fruits, caffeine, alcohol and peanuts.

This study compares the AI diet with a standard diabetic diet based on the American Diabetes Association guidelines. During the six week study, participants receive all their food from the research kitchen of the General Clinical Research Center at Oregon Health & Science University. Researchers will then compare the two groups to see if there is a difference in blood markers of inflammation and other health indicators in a diabetic and pre-diabetic population.

Increasing Prevalence of Diabetes in the United States

This figure illustrates the sharp increase in rates of diabetes from 1990 to 2001. During that time period, the prevalence of diagnosed diabetes among adults in the United States increased in every state. Type 2 diabetes accounts for 90-95% of diabetes cases overall. The dramatic rise in the rates of diabetes has followed the increase of obesity in the general population. Central causes of type 2 diabetes are obesity and lifestyle factors, including excess calorie and fat intake and low levels of physical activity.



Sources for diabetes information:

- American Diabetes Association
www.diabetes.org
- Centers for Disease Control and Prevention
www.cdc.gov/diabetes



Patricia J. Elmer, PhD, MS, FAHA

Dr. Elmer received her master's degree in nutrition from the University of Wisconsin-Madison and doctoral degree in epidemiology from the University of Minnesota. She has served as a faculty member at the University of Minnesota School of Public Health, a Senior Investigator at the Kaiser Permanente Center for Health Research, and a senior advisor to The National Institutes of Health (NIH), the World Health Organization and other national health and nutrition organizations to establish dietary and clinical practice guidelines. She is the principal investigator for the Anti-Inflammatory Diet for Diabetics & Pre-diabetics study.

Expectancy in Treatment of Metabolic Syndrome & Obesity

Researchers at Helfgott are seeking to stop diabetes before it starts, with an NIH-funded study on treatment of a pre-diabetic condition called metabolic syndrome. Carlo Calabrese, ND, MPH,



the lead researcher on the study, believes that naturopathic medicine, with its emphasis on prevention, offers the tools to reduce metabolic risk factors and lead a healthier life.

Metabolic syndrome is a collection of conditions that elevate the risk of diabetes and cardiovascular disease. These risks are even higher when combined with obesity. People with three or more of the following conditions—high blood pressure, high blood glucose levels, high triglycerides, low HDL cholesterol, and a tendency to gain weight in the waist—are diagnosed as having metabolic syndrome.

The good news is that these risk factors can be improved. According to the American Heart Association, making lifestyle changes, including weight

loss, eating healthfully and exercising, can reduce the risk of metabolic and cardiovascular disease.

During the 12-week pilot study, 100 obese men and women with metabolic syndrome are randomly assigned a natural supplement for weight loss, to see if the effect of the supplement changes based on the expectancy of receiving the supplement. Participants also undergo a nutrition education program taught by a naturopathic physician and are instructed to increase their exercise level and use a relaxation and visualization CD.

The goal of this study is to yield information about the efficacy of weight loss methods and the expectancy effects associated with these methods.

Diabetes today:

- 20.8 million people in the United States (7% of the population) have diabetes.
- Diagnosed: 14.6 million people
- Undiagnosed: 6.2 million people
- Diabetes was the sixth leading cause of death in 2002
- Risk for death among people with diabetes is about twice that of people of similar age without diabetes

The high cost of diabetes:

- Total (direct and indirect): \$132 billion
- Direct medical costs: \$92 billion
- Indirect costs: \$40 billion (disability, work loss, premature mortality)

Carlo Calabrese, ND, MPH

Dr. Calabrese received his ND from NCNM and his MPH in Health Services from the University of Washington. He was a founder and co-director of the Bastyr University Research Institute and has performed and published clinical trials and observational studies in nutrients, botanicals, and CAM practices. Dr. Calabrese currently works to develop research methods for investigating complementary and alternative medicine (CAM) and to develop a national research agenda for naturopathic medicine. He is the principal investigator for the Expectancy in Treatment of Metabolic Syndrome and Obesity study.





A Student Launches her Career in Natural Medicine Research

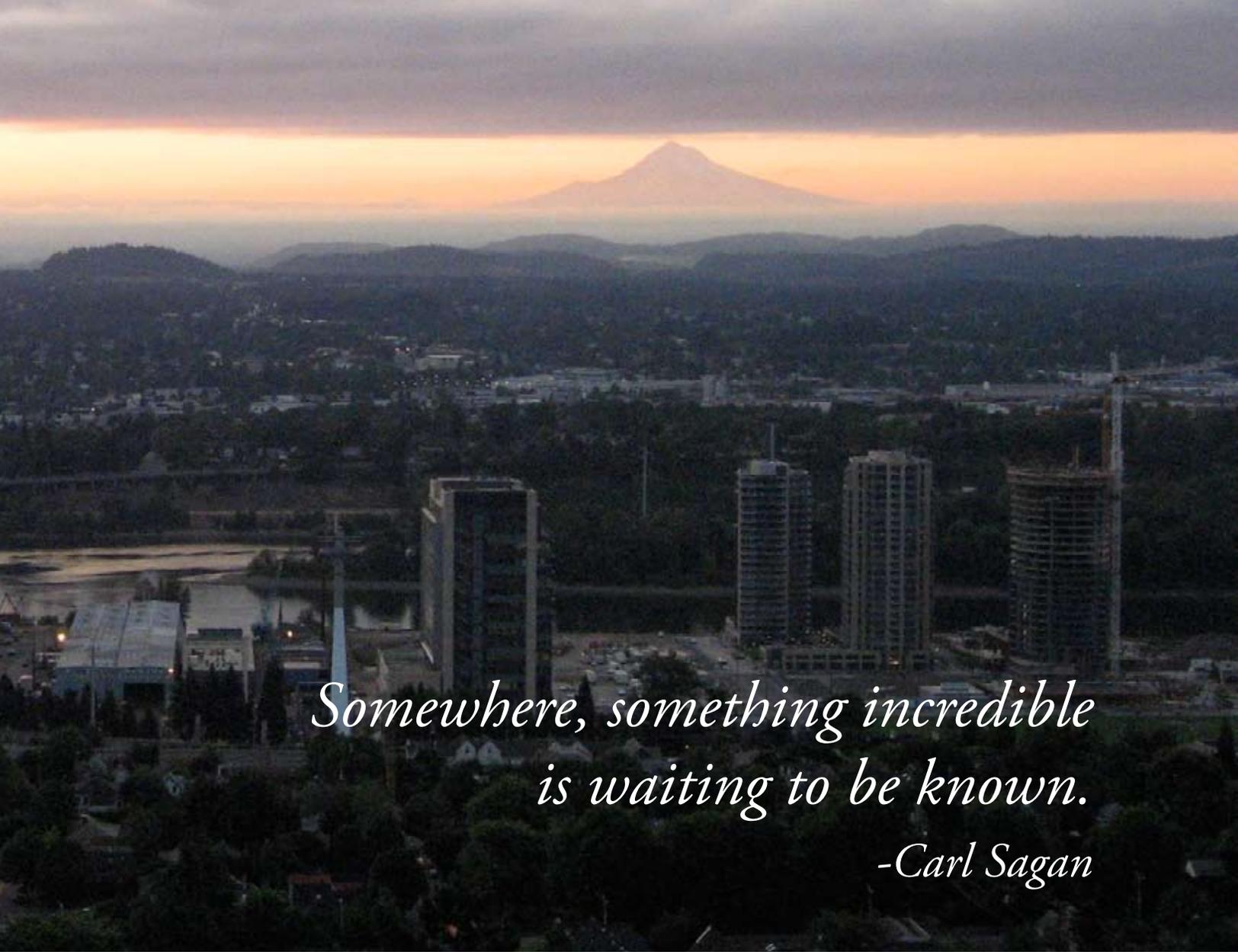
Carolyn Iacullo is a second-year ND student working under Dr. Heather Zwickey at the Helfgott Research Institute. Carolyn graduated from the University of Dayton with a BS in Biochemistry. After she completes her ND degree at NCNM, she plans to continue her education with a post-doctoral fellowship at the



National Institutes of Health, specializing in breast cancer research. Carolyn feels that research is vitally important to natural medicine because it furthers the field by giving Naturopathic Doctors justification of their practices and evidence that they are providing their patients with the best care possible. Student research allows today's students to stand shoulder to shoulder with the individuals who are changing the face of medicine. She believes that the medical field will experience a paradigm shift and that through research, students at NCNM have the ability to be a part of that exciting change.

“Through research we gain knowledge of the processes that govern the natural world. My vision is to one day run a research institute dedicated to the study of natural medicine.”

-Carolyn Iacullo



*Somewhere, something incredible
is waiting to be known.*

-Carl Sagan

Community & Collaborations

Within NCNM

Natural medicine researchers, NCNM faculty, and post-doctoral students join together weekly to challenge and support each other at Feet to the Fire, a forum for researchers to present new ideas, develop research proposals, and learn the research process. Attendees and presenters both benefit from Feet to the Fire's collegial yet scientifically demanding environment. In addition, Feet to the Fire encourages collaboration among Helfgott researchers.

Within the Portland Area

Not only do researchers work with each other within Helfgott, natural medicine researchers from throughout Portland collaborate often on scientific studies and events.



These partnerships culminated in the spring of 2006, when researchers from Helfgott at NCNM, Oregon Health and Science University, Oregon College of Oriental Medicine, Western States Chiropractic College, and Kaiser Permanente Center for Health Research held the first Symposium for Portland Area Research on Complementary and Alternative Medicine (SPARC). With more than 100 in attendance, SPARC hosted

research presentations on Ayurveda, Chinese medicine, chiropractic medicine, homeopathy, naturopathic medicine, reiki, and shamanism. The 2006 symposium theme was how to study dynamic healing techniques when their effects may not be captured by the dominant research standard of a randomized, controlled study. SPARC is an exciting example of the power of coherence, and is evidence of the strong CAM community in Portland.

Magnets & Carpal Tunnel Syndrome

It is estimated that between 1% and 3% of Americans suffer from carpal tunnel syndrome (CTS). Therapeutic magnets are being used as a self-help treatment by many sufferers of CTS, yet only two research studies have tested whether magnets are indeed helpful for this condition, and they produced contradictory results.

Helfgott investigator Agatha Colbert, MD's goal is to evaluate the safety and possible benefits of magnet therapy for people with CTS. She is currently working on two projects: a comprehensive review of the literature on static magnetic field therapy, and an NIH-funded pilot study. The goal of the pilot study is to determine which of three magnet strengths to use in a future study on this therapy's effectiveness on carpal tunnel syndrome. This is a first step to ultimately conducting large scale trials on magnets for other chronic painful conditions.



Carpal tunnel syndrome:

- Carpal tunnel syndrome affects up to 3% of the general population
- The average lifetime cost of carpal tunnel syndrome in lost time from work and medical bills is \$30,000
- Women are three times more likely than men to develop the syndrome
- Estimated U.S. sales of magnetic therapy devices in 1999 was \$350 million

For more information on carpal tunnel syndrome:

- National Institute of Neurological Disorders and Stroke
www.ninds.nih.gov



For more information on therapeutic magnets:

- National Center for Complementary and Alternative Medicine (NCCAM)
<http://nccam.nih.gov/>



Agatha Colbert, MD

Dr. Colbert completed her medical training at the University of the West Indies, her specialty training in Physical Medicine and Rehabilitation at Ohio State University and her NIH post doctoral research fellowship at the Oregon Center for Complementary and Alternative Medicine. Her previous studies include an evaluation of the effects of a magnetic mattress pad for fibromyalgia patients and the electromagnetic properties of acupuncture points and meridians. She is currently the principal investigator for the Carpal Tunnel Syndrome and Static Magnetic Field Therapy study.

Student Research

NCNM students are crucial to advancing research at NCNM. As one of only three naturopathic research departments in the country, Helfgott provides its students with the rare opportunity to acquire clinical research training experience in a CAM focused institution. Part of Helfgott's mission is to train naturopathic physicians to conduct rigorous and high quality research and advance the science of natural medicine. In addition to

participating in faculty driven research projects, many NCNM students conduct independent research mentored by faculty sponsors. This is a program unique to NCNM among all of the naturopathic schools. Students are encouraged to pursue their own research ideas and are trained how to conduct clinical research. This program teaches student-researchers how to become successful and well-recognized physician-scientists.

Constitutional Hydrotherapy

Constitutional hydrotherapy is a water and electro-therapy that utilizes the effects of hot and cold water along with sine wave stimulations to promote healing in the body. There are examples of hydrotherapy throughout history—from a sweat lodge followed by a soak in the river to a sauna followed by jumping in a snow bank. Hydrotherapy is thought to increase blood flow, stimulate and aid in digestion, and promote removal of toxins from the body. Though the mechanism of how hydrotherapy elicits physiological effects is unknown, at a cellular level, heat is known to activate immunostimulatory proteins called heat-shock proteins. Hydrotherapy may have a similar effect on the body. This study examines the effects of hydrotherapy on heat shock proteins and cytokine production.



Regulating Cortisol Patterns

Cortisol is a hormone that is released in a circadian pattern. “Healthy” cortisol secretion is defined by a peak early in the morning, which wakes an individual, followed by a decrease throughout the rest of the day. Some individuals may have misregulated cortisol patterns. High cortisol is dangerous because it increases blood pressure, blood sugar levels, suppresses the immune system, and may cause infertility in women. It has been further linked to insulin resistance, obesity, and NIDDM (Non-Insulin Dependent Diabetes Mellitus). Therapies such as meditation, relaxation, and other stress-reducing mind-body approaches may lower cortisol levels. However, do these therapies facilitate “normal” cortisol patterns? This study evaluates different mind-body therapies on cortisol regulation.

Correlating Models of Personality with Health

Ancient health systems assessed mind and body on a continuum. In these systems, personality and health were inter-linked and assessing personality types was useful for predicting and treating specific health outcomes. Although a strong correlation has been shown between a high stress personality type and cardiovascular disease, most modern diagnoses rarely correlate personality and health outcomes. This study uses several personality measures (including the Big Five Personality Inventory, Enneagram, Ayurveda, Chinese Astrology, and Western Astrology) and compares them to health outcomes.

Sperminator

Nonoxyl-Nine is currently the only effective spermicide on the market. While highly effective, Nonoxyl-Nine sensitivity is an issue for many men and women. Naturopathic physicians have alternative substances that may be effective spermicides. Sperminator is an all natural spermicide that may be an effective prophylactic. Current studies have demonstrated that Sperminator kills sperm in vitro. It is now being tested for safety.



Giving to the Helfgott Research Institute

We see endless possibilities for the future of natural medicine research

In only three years, Helfgott has tripled in size, attracting major national funding and generous private donor support. With multiple NIH-funded studies currently underway, a dedicated and creative team of investigators and a stable financial base, we are already a viable, regionally-recognized force in CAM research. Help us reach our goal of becoming a national leader in this burgeoning field.

As a Helfgott donor, you can take pride in the knowledge that you are part of a community of forward-thinking individuals who believe in the power of prevention and the wisdom of holism. Here, your dollars can make a sizable impact. Don Helfgott, Inspiration Software co-founder and the donor for whom Helfgott Research Institute is named, said he chose to make a contribution because he saw a chance for his investment to make more of a difference than it would at larger, standard medical research organizations. "This is virgin territory," he said, "a major opportunity for people to fund lasting and meaningful research."

Gifts to Helfgott help fund large-scale clinical trials and basic research studies, investigative and post-doctoral positions, new laboratory space and equipment, and assist us in expanding our ever-growing institute.

"This is virgin territory, a major opportunity for people to fund lasting and meaningful research."

-Don Helfgott

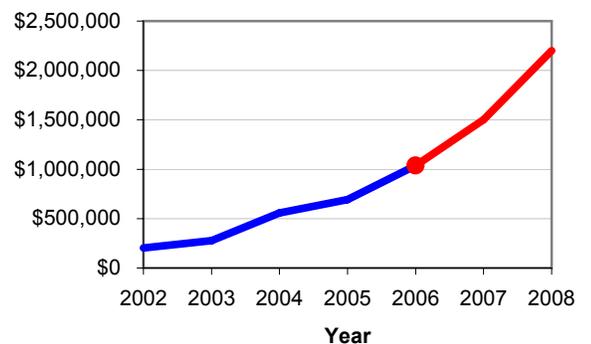
Become part of our vision

You can help by donating to the Helfgott Research Institute. If you wish to donate, please make checks payable to: Helfgott Research Institute. Please include your return address and mail checks to:

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National College of Natural Medicine
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Portland, OR 97201
503-552-1743

The Helfgott Research Institute at the National College of Natural Medicine is a non-profit organization and all donations are tax deductible. We will send you a letter with our tax ID number upon request.

**Total Research Budget at NCNM
(Grants, Donations, Institutional Support)**



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Richard Barrett, ND
Faculty Investigator

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