

THE

Stowers

R E P O R T

NEWS AND
INSIGHT FROM
THE STOWERS
INSTITUTE
FOR MEDICAL
RESEARCH



A water garden, fountains and sculpture make the north side of the Stowers Institute campus a special place.

Photo by Don Ipock

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Inside this issue . . .

Jim Stowers, co-founder of the Stowers Institute, unveils his ideas for the Biomed Valley Partnership, which will promote basic research and develop and market scientific discoveries for the benefit of humanity.
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Kate Voorhees walks 2,650 miles through mountains and desert to honor the memory of her father and raise money for the Stowers Institute.
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VOLUME 5
ISSUE 2

THE DREAM GROWS –

Jim Stowers Unveils Biomed Valley Partnership

While being honored for his contributions to Kansas City in creating the Stowers Institute, Jim Stowers unveiled the next stage in the dream shared by him and his wife, Virginia, of turning the metropolitan area into a world center for basic biomedical research. At Midwest Research Institute (MRI) in June, Mr. Stowers announced the creation of two new corporate entities under the name Biomed Valley Partnership to develop and market scientific discoveries.

The Partnership will meet the need to translate discoveries from the Stowers Institute and other research-focused organizations into products to improve people's health. It also provides the means for scientists to be rewarded for their breakthrough discoveries without having to turn themselves into business people. He urged universities and other research organizations in the area to become partners in an undertaking that "cannot be done by the Stowers Institute alone. Other institutions and other leaders in Kansas City must become involved."

Taking the Lead in Basic Research

Making Kansas City an international leader in basic research, he continued, requires the following things:

- A plan to unite the community and the research institutions;
- A level of scientific excellence that satisfies the highest standards;
- One of the best means of patenting, developing and marketing scientific discoveries, and
- A way of converting the value of future discoveries into additional assets for more research.

To accomplish these goals, two new companies have been incorporated at Mr. Stowers' personal initiative under the umbrella of the Biomed Valley Partnership. One, Biomed Valley Corporation, is a **not-for-profit** holding company that is to manage the Partnership. It will rally the community and the various research partners toward a common goal while generating financial support for research.

The second entity in the Partnership is Biomed Valley Discovery, Inc., a **for-profit** company. It will focus on finding the best places, such as pharmaceutical firms and scientific equipment makers, to develop discoveries coming from the laboratories of the Stowers Institute and the other research partners.

Profit and Non-Profit Mix

Although incorporation has been completed for both companies, the Internal Revenue Service must approve the operating plan. Once the IRS concurs, Mr. Stowers' plan will allow the Stowers Institute and other research institutions that join it in the Partnership to own Biomed Valley Corporation, which, in turn, will control Biomed Valley Discovery. However, Biomed Valley Discovery, the for-profit arm, would be completely independent of the Stowers Institute and other research partners and would not receive financial or administrative support from them. Once established, it will support itself.



At the MRI dinner honoring Jim Stowers, from left: **James L. Spigarelli**, president and CEO of Midwest Research Institute; **James E. Stowers Jr.**, co-founder of Stowers Institute, and **Louis W. Smith**, chairman of the Board of Directors of Midwest Research Institute.

In his speech at the MRI annual dinner on June 4, where he received the MRI Trustee Citation, Mr. Stowers said these are the key aspects of Biomed Valley Discovery:

- Will focus on finding the best commercial home for new discoveries arising from laboratories devoted to basic biomedical research;
- Will have the exclusive right to seek, patent, develop and market all the discoveries arising from the laboratories of the research partners;
- Will eventually benefit those institutions in Biomed Valley that agree to become Research Partners, and
- Will go as far from Kansas City as necessary to find discoveries worthy of commercialization.

Declaring that the Stowers Institute stands ready to become the first Research Partner of Biomed Valley Corporation, he said one of the requirements will be that the Institute turn over all of its future scientific discoveries to Biomed Valley Discovery for development and marketing. In return, scientists of the Institute “can look forward to having an excellent company especially created to patent, develop and market discoveries arising from their research. This enables scientists to focus on their basic biomedical research while still being rewarded with half of all the profits derived from their discoveries.”

Assuring his audience that the dream envisioned by him and Mrs. Stowers can be accomplished, he said, “We are well down the path that will change the life and well being of our community. Our dream will come true.” 🌱

Stem Cell Discovery by Stowers Researchers

Researchers at the Stowers Institute for Medical Research have found more clues pointing to nurture as the winner in the “nature versus nurture” debate.

Investigators led by Ting Xie, a Stowers Institute Assistant Scientist, discovered that cell adhesion molecules in the fruit fly ovary act as a type of “cell glue” that attracts stem cells to their specific microenvironment or stem cell “niche” and anchors them in place once there. This physical anchoring of the stem cell in its niche plays a vital role in maintaining the undifferentiated state and offers promise for the potential therapeutic use of stem cells to regenerate damaged tissue in humans.

These findings were reported in the June 7 issue of *Science*, one of the principal journals in which scientists reveal their discoveries.

Helps Stem Cells Find Niche

Stem cells have an infinite ability to reproduce, creating daughter cells that can then transform themselves into replacement cells based upon the instructions they receive. But in order to receive these instructions, the daughter cells must be in their niche. Research conducted in the laboratory of Dr. Xie shows that DE-cadherin-mediated cell adhesion, or “cell glue,” helps stem cells find their niche, and then anchors them in place so that they can receive these vital instructions. Once the cell glue is lost, the stem cells are also lost and can no longer receive the instructions that control their actions.

In conducting the research, the team found two proteins, DE-cadherin and b-catenin, that accumulate in high levels in the junctions between the fruit fly’s germline stem cells and cap cells, one

of the niche components. When these proteins were removed from germline stem cells, the stem cells disappeared.

Uses in Studying Degenerative Diseases

“Our research allows us to study the niche environment and the mechanism of communication between stem cells and their niches. As we learn more about how stem cells are first attracted to and then kept in their niche, we are better able to assess their structure, function and maintenance,” Xie said. “This understanding is crucial in assessing the future use of stem cells in treating degenerative diseases such as Parkinson’s, Alzheimer’s and diabetes and in penetrating the mysteries of stem cell involvement in tumor formation and the aging process.”

William B. Neaves, Stowers Institute President & CEO said, “Dr. Xie’s research demonstrates that the microenvironment is more important than the stem cell itself in determining its fate, information that lends hope to the thought that stem cells from any organ may be able to replace damaged cells in another organ if they find themselves in that organ’s stem cell niche.”

This discovery builds upon previous research by Ting Xie and Allan Spradling at the Carnegie Institution of Washington, which demonstrated that stem cell function is regulated by environmental factors. The research was also supported by a grant from the National Institutes of Health. 🌱

WHY THEY DO IT: OUR SCIENTISTS TALK

Scott Hawley, Senior Scientist

When I was not quite 13, I was diagnosed with epilepsy. It was not a big deal to me; I just took medicine and the seizures stopped. But it was a very big deal to my school district. For “liability reasons,” they put me in a class called “modified P.E.” Really, it was a class for severely developmentally disabled kids, the kids everyone else called “retarded,” which is one of the ugliest words in the English language. I spent one hour a day, five days a week, 32 weeks a year with those kids. I saw how badly their teachers and their peers treated them. I also learned to like, admire and respect them. Many of them had better hearts and more courage than most of the “normal” kids I knew. Out of this grew a burning interest in birth defects.

Initially, I wanted to pursue that interest as a lawyer - a Clarence Darrow for kids with birth anomalies. Basically, I think I just wanted to sue every other school district in the country to make them stop putting these kids in educational ghettos and to prevent the daily abuse they took.

But a freshman advisor at college told me that I might want to learn something about the origin of birth defects first. I took a genetics course, and it was truly “love at first lecture.” I fell in love with the beauty of genetic analysis and the rigor of genetic thinking. Fortunately, University of California-Riverside had numerous talented and creative geneticists on faculty. One of these, Crellin Pauling (the son of Linus Pauling, the two-time Nobel Prize-winning chemist) provided a recommendation that got me into the graduate program in genetics at the University of Washington. There, I had the privilege to train under Larry Sandler, one of the greatest American

geneticists, who imbued in me a true passion for understanding chromosomes and cell division.

And the rest is pretty standard academic history. Now, I work on the causes and origins of birth defects. 🦋



Photo by Doug Koch, University Relations, KU

Scott Hawley, surrounded by the paraphernalia of a fly researcher.

Robb Krumlauf, Senior Scientist and Scientific Director

I have always been curious about how things work: machines, plants, animals, the basis of life, etc. I felt a scientific career would be the logical platform from which to satisfy my curiosity. Because of my mathematical and science skills, I was encouraged to pursue engineering. I got a degree in chemical engineering and, while enjoyable, I found as I worked in the field that I devoted more effort to using existing information to make a product than to tackling unsolved questions. And it was the unsolved questions that most intrigued me.

Hence, I went to graduate school to find the educational and experimental tools for fundamental research. I fell in love with basic questions in biology. What makes an arm different from a leg? In what ways are we similar yet different from other mammals? While much of developmental biology and biology were descriptive, a new technology termed molecular biology was being developed. It became apparent to me that this technique would begin to revolutionize how we addressed biological questions. So, during postdoctoral training, I concentrated on becoming proficient

at molecular biology and finding ways to merge or integrate my engineering, quantitative and molecular biology skills with important development problems.

While interested in helping to cure diseases and be involved in clinically relevant research, I felt first things must come first. We need to understand how the body and its component parts are formed and assembled into a functional organism. In setting up my own lab, I decided to pursue my interests in how the basic animal body plan is generated and regulated. I was lucky enough to work on a family of genes that play highly conserved roles in regulating pattern formation in tissues such as the nervous system, skeleton, limbs, gut, etc. This provided a basis for comparing how processes are similar and different in animal species. Because the gene family I have used as a central focus of my research has proved to play key roles in development, disease and evolution in many species, there is a wealth of interesting questions to examine.

This has become my life's work, and part of the excitement is that we never know where it is going to lead us next. 🌱

Linheng Li, Assistant Scientist

Although I majored in genetics in college, it wasn't until I was admitted to the Genetic Institute at Fudan University for my master's work that my interest in the field grew into a real passion. The Genetic Institute was founded by C.C. Tan, the first person to introduce the Morgan Genetic theory to China, and the training I received there opened the way to my future concentration. Later, as I was completing my Ph.D. in molecular and cellular biology at New York University, my advisor, Edward Ziff, recommended that I think in terms of biological systems, instead of research on one gene, which would allow me to pursue interesting biological questions for my entire life.

I was attracted to the stem cell research being carried out by Irv Weissman at Stanford University, particularly because of the special properties of stem cells, including replicating themselves and being the mother cells for all the downstream daughter cells. However, research in stem cells at that time was not as active and popular as it is now, even though it was just seven or

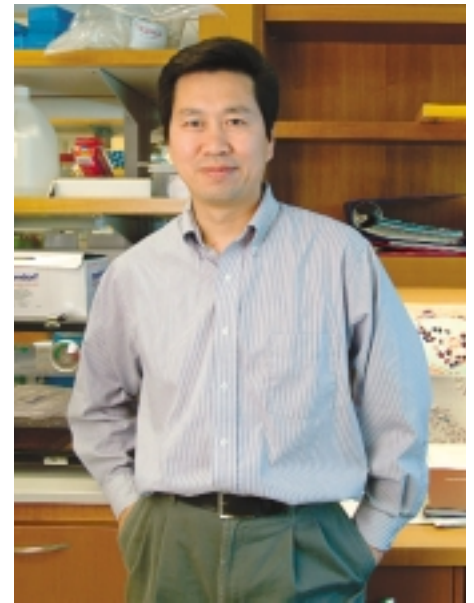


Photo by Don Ipock

Linheng Li in his laboratory at the Stowers Institute.

eight years ago. This was primarily because technology was not yet adequate to unravel the molecular components of stem cells.

But Lee Hood at the University of Washington convinced me that his expertise in biotechnology would be helpful for analyzing stem cells at the molecular level. So, I joined his laboratory for postdoctoral training, and Lee Hood helped to set up collaboration with Irv Weissman and his co-workers at Stanford. We adapted their system in studies of hematopoietic stem cells.

At the Stowers Institute, my lab investigates the molecular mechanisms that maintain and regulate the properties of adult stem cells. These include how stem cells maintain their multipotentiality; how stem cells replicate themselves (self-renewal); and recently, we also started to look into how stem cells are selected during the transition from the fetal to the adult stages.

I chose this specific focus, first, because of my curiosity about the relationship between the features of stem cells and the causes of cancer.

continued next page



Photo by V. Craig Sands

Robb Krumlauf talking science with U.S. Sen. **Pat Roberts** of Kansas and Kansas City Mayor **Kay Barnes**.

Accumulated evidence, including that from our own studies, supports a concept that tumors can initiate from either uncontrolled proliferation of stem cells or from progenitors that gain self-renewal ability, one of the features that stem cells usually possess, due to mutations. The other reason for my interest in this particular line of research is the tremendous potential of stem cell technology for treatment of a variety of diseases, such as Parkinson's and diabetes. 🌳

Jim Coffman, Assistant Scientist

My greatest interest has always been to understand where we came from and how we got here, which led me to graduate school with the intention of becoming an evolutionary biologist. However, at that time (the mid 80s) it was clear to me and many other biologists that the greatest gaps in our understanding of evolution lay in explaining how the process of development itself evolves. So, I wanted to do research that integrates evolutionary and developmental biology. It very quickly became clear to me that, in order to do this, we need a deep understanding of how genes regulate development (since genes are the hereditary substrate of evolution, and development is the genetically-controlled process that generates an organism).

In Dave McClay's lab at Duke, I was introduced to embryology and got to watch sea urchin embryos develop before my very eyes under a microscope. That led me to shift my primary focus from evolution to development. Instead of measuring museum specimens of mouse skeletons and doing statistical analyses, I began to do the much more exciting work of experimenting on living, developing sea urchin embryos.

I also became aware of Eric Davidson and Roy Britten's seminal theory of eukaryotic gene regulation, which seemed to offer the most powerful route toward understanding both the genetic regulation of development, and how this changes in evolution. After receiving my Ph.D., I went to do a post-doc with Eric Davidson at Caltech, where I set out to study developmental regulation of gene expression in sea urchin embryos.

The projects and research interests that I am now pursuing were born of the work that I initiated in Eric's lab, where I purified a number of transcriptional

regulatory proteins (proteins that bind DNA in the vicinity of a gene and thereby regulate the activity of that gene), obtained their amino acid sequences, and cloned them. Cloning of genes opens the door to studying their function and regulation through experimental molecular biology, and the work that we are doing now in the lab on SpRunt, a sea urchin transcriptional regulatory protein that is related to a set of cancer-causing human genes, was made possible by my cloning of SpRunt in Eric's lab. 🌳



Jim Coffman at work in his laboratory at the Stowers Institute.

Photo by Don Ipock



Arcady Mushegian in the Bioinformatics Department of the Stowers Institute.

Photo by Don Ipock

Arcady Mushegian, Director of Bioinformatics

While I was in high school in Moscow, I took a course in genetics given by a bunch of young scientists from the main Soviet nuclear physics research institute. From that experience, I decided that genetics was interesting, and got myself admitted to the College of Biology, Moscow State University.

This was a great place at the time, somewhat insulated from communist propaganda. People at the college were mostly concerned with going into the fields and forests or tinkering with bugs in the lab. There, I discovered I was quite ignorant of classical biology, i.e., studies of plants and animals in their natural habitats. I decided to catch up, which meant many books and field expeditions. By the time I was working on my master's degree, I decided that my real interest was botany. I tried to combine this with

genetics by studying genetics of viruses that hurt plants.

All the while, I was not sure that I was doing what I really wanted to do. So I worked at the University in some technical and teaching jobs and volunteered with a group of scientists that set out to reform the K-12 curriculum in biology. About this time, personal computers became available in the Soviet Union, and Alex Gorbalenya and Eugene Koonin were using them to compare gene and protein sequences. That sounded really cool, because it had to do with looking at many biological species at a time, but also because trying to find similar "words" in genetic "texts" looked and felt like comparing languages, which somehow was appealing.

To make a long story short, from 1990 to 2001 the following transitions

happened: first, I decided to do more science and the United States seemed like a better place to do it (and still is), so I moved here; second, the hobby of analyzing sequences gradually became a full-time occupation; third, it all took me across five states and from academia to government to industry and back. In the meantime, someone invented the term "bioinformatics," and comparative sequence analysis was recognized as the most important part of this discipline, and, indeed, one of the foundations on which we do modern biology. 🌿

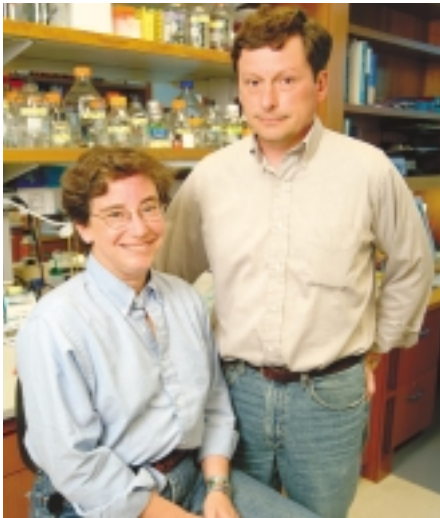


Photo by Don Ipock

Joan and Ron Conaway work together and now have been honored together.

Conaways Jointly Honored by Learned Society

Two Stowers Scientists were among 177 Fellows elected this year to the American Academy of Arts and Sciences, a learned society that honors intellectual achievement, leadership and creativity in all fields.

Joan and Ron Conaway, both Senior Scientists, who jointly direct their laboratory at the Institute, were elected to the biochemistry and molecular biology section of the biological sciences class. The honor reflects their contributions to understanding the molecular mechanisms and regulation of gene transcription, work that is considered fundamental to understanding issues related to cancer and a number of other diseases.

Others in this year's class of Fellows, who were inducted at a ceremony in Cambridge, Mass., on Oct. 5, include a U.S. senator, a congressman, four college presidents, three Nobel Prize winners, six Pulitzer Prize winners, three MacArthur Fellows and six Guggenheim Fellows. In

Appointment of Baumann Adds to Institute's Chromosome Expertise

Peter Baumann, whose postdoctoral work at the University of Colorado led to a notable discovery in the study of chromosome dynamics, has joined the Stowers Institute as an Assistant Scientist leading an independent laboratory.

Dr. Baumann's research focuses on telomeres, the end pieces of chromosomes that act as a molecular clock to determine how many times a cell can divide before dying. The goal of his research is to understand the dynamics of telomere length regulation and to use this knowledge to influence the life span of specific cell populations. His research has significant relevance both for attempting to limit the infinite potential of cancer cells to divide and for seeking ways to prevent premature aging of tissues.

Before coming to the Stowers Institute, Dr. Baumann was a postdoctoral fellow in the laboratory of Dr. Thomas R. Cech at the University of Colorado, where he discovered the Pot1 protein (Protection-of-telomeres) that caps the ends of chromosomes in fission yeast and in humans.

"Peter Baumann's discovery of the Pot1 protein, previously believed not to exist in higher organisms, has changed how we think about telomeres," said William Neaves, Ph.D., President & CEO of the Stowers Institute. "The Stowers Institute will provide an optimum environment for Dr. Baumann's exploration

of the role of this protein in protecting the ends of human chromosomes."

Robb Krumlauf, Ph.D., Scientific Director of the Stowers Institute said, "We are excited Peter Baumann is joining us to set up his research program on telomeres and mechanisms that regulate chromosome stability and aging. Peter has done significant work on telomeres, recombination, and DNA repair as a graduate student and postdoctoral fellow. His creative research will complement and expand existing scientific interests at the Stowers Institute on the fundamental properties of chromosomes and their role in disease."

A native of Germany, Dr. Baumann completed undergraduate and graduate studies at the University of Cambridge and holds a Ph.D. from the Imperial Cancer Research Fund, Clare Hall Laboratories, London.

This most recent addition brings the Stowers Institute to a total of 12 independent laboratory research programs plus technology development programs in bioinformatics and transgenics as well as several state-of-the-art research support programs in areas such as cell sorting, genomics, microarray and imaging. 🌿

addition, 30 Foreign Honorary Members were selected.

The American Academy of Arts and Sciences was founded in 1780 by John Adams, James Bowdoin, John Hancock and other scholar-patriots "to cultivate every art and science which may tend to advance the interest, honor, dignity and

happiness of a free, independent and virtuous people."

The Conaways came to the Stowers Institute two years ago from the Oklahoma Medical Research Foundation. Both have Ph.D.'s from Stanford University School of Medicine, she in cell biology and he in biochemistry. 🌿

KATE VOORHEES

2,650 Miles for Dad and Science

Back in April, after six months of training and planning, Kate Voorhees strapped a 35-pound backpack on her 120-pound, five-foot frame, and set out on a 2,650-mile hike through the desert and mountains in memory of her father — and for the benefit of the Stowers Institute.

On Sept. 28, she crossed into Canada at the end of a trip that began southeast of San Diego at the Mexican border. Following the Pacific Crest Trail, known as the PCT, she meandered north through California's San Bernardino Mountains, the Mojave Desert, the Sierra Nevada, climbed to the top of Mt. Whitney at 14,495 feet, then continued across Oregon and Washington in the Cascade Mountains, and finally reached the end of the trail at Manning Park in British Columbia.

While she was walking — accompanied by extreme heat, occasional ice and cold, bugs, a rattlesnake and a bear or two, hunger and, most of all, sore feet and blisters — contributions were arriving at the Stowers Institute. When her trek ended, the Institute had received more than \$15,000 toward her goal of raising \$20,000, with additional gifts expected from those who had pledged so much for each mile she actually covered.

Father Died of Cancer

Vernon Voorhees II, a Kansas City businessman, died in October 2000 of esophageal cancer at the age of 58. Kate, 28, who grew up in the Kansas City area but has been living in Jackson Hole, Wyo., in recent years, shared a great

love of the outdoors with her father, so this extreme test of her strength and determination seemed the ideal way to honor him.

She mailed cards to her friends and her dad's friends and associates urging them to give or pledge donations to the Stowers Institute in his memory. She chose the Stowers Institute because of its

into each other at various times along the way, sharing their joys and miseries. Few towns lie along the route, so Kate spent most nights outdoors in the super lightweight tent she carried in her pack.

In California, a species known as "Trail Angels" sometimes appeared as if by magic to offer hikers a roof, a meal, a chance to do laundry at their homes.



Kate Voorhees at the summit of Mount Moran the year before she set out on her 2,650-mile jaunt up the Pacific Crest Trail.

dedication to the kind of basic research that offers hope for preventing or curing a number of forms of cancer.

One of the most challenging hiking experiences anywhere, the Pacific Crest Trail attracts large numbers of hikers every spring and summer. Most hike only a portion of the trail; only about 250, like Kate, were registered as through hikers this year. For the summer, they became a floating community, running

Occasionally, a friendly driver would give some of the hikers a lift into the nearest town for a night in a bed at a motel, a shower and a meal at a greasy spoon or fast-food restaurant.

Otherwise, she made do with dehydrated food she sent ahead to the series of food and water "stashes" for hikers along the trail.

continued next page

In Her Own Words

But this is a story better told in Kate's own words, from her journal, beginning when she left the southern terminus of the trail outside San Diego with a warning from the Border Patrol to be careful of Lyme disease and *illegales*.

April 22 – “The landscape is expansive, desolate; sand and chapparal as far as the eye can see, with an occasional manzanita tree to supply the only shade. . . I walked briskly and realized I was eventually alone, and it was quiet. I see a tarantula on the trail and take a picture. As darkness approached, I found a good rock outcrop to camp. . . However, I cannot sleep, every noise and shadow startles me. At midnight, two helicopters fly low above me, and dogs are barking constantly.”

April 23 – “Some friendly folks. . . greeted me and invited me for ice cream . . . We all slept out on our tarps in sleeping bags. I felt so comforted to be in safe company, and slept heavily.”

April 27 – “I am meeting people with trail names like Griz, Patch, Swiss Miss and Tripod.”

April 28 – “We could not find a flat spot to camp in the dense chapparal and the unforgiving land of the desert. . . We slept in the road and hoped no night adventurer would run us over. My blisters are not happy. . .”

April 29 – “Here we meet Wild Child, Goof and Rock Star.”

April 30 – “Death march times two. . . I was far behind the group, struggling with sore feet and sore muscles. When I got to mile 17 with six more to go, I came out on the most incredible vista,



The Pacific Crest Trail, which Kate Voorhees followed for five months, begins at the Mexican border and ends at Manning Park in British Columbia.

after climbing ridiculously long stretches of switchbacks. It was beautiful, but before me were six miles of more maze-like nook and cranny cuts through the mountainside. And no water or place to camp. I broke down and sobbed.”

May 3 – “. . . a large truck pulls up. . . we ask him if he will take us to the market for food. An hour later we have ribs, a whole chicken, ice cream, chips and beer.”

May 4 – “We hike 10 miles to the Pines-to-Palms highway, where we take a mile detour for water and the biggest, best burgers (second to my dad’s Bubby burgers) at the Paradise Café. . . It is a long, yet beautiful hike through the San Bernardino Mountains to Cedar Springs camp. . . I drink straight from the springs the water is so fresh.”

May 9 – “I have to walk on my tip toes my heels hurt so bad. The way is flat, windy and sandy. . . We cross I-10 and in one mile meet the Pink Palace. This place is Don Middleton’s, an integral member of the PCT family. He has donated a trailer, and pink stucco house . . . to PCT hikers. He supplies H₂O and the place is stocked with food, utensils and kitchen ware.”

May 11 – “I . . . met up with Shawn, who is a slow walker, too. But a fast talker. He told me story after story all day long, which kept me going because my feet were killing me.”

May 12 – “The fire station (in Big Bear) puts us up on their green grass lawn for free. Where we can take showers, too. I am taking two rest days here.”

May 19 – “G-Rad and I go to the Yodeler Grill and Bar (in Wrightwood) for a burger and beer. . . The pizza delivery truck delivers G-Rad and me with pizza to Kate and Randy’s Happening Home,

where there are 12-plus thru-hikers staying. They have two guitars and we play a while.”

May 24 – “Feeling great, the miles don’t seem as hard. I’m sore at the end of the day, but I no longer have to take Ibupro to sleep at night.”

May 28 – “It’s HOT, hotter than fried chicken skin.”

May 31 – “. . . the most amazing trail magic occurs. Phantom arrives at the road with fruit and Cokes and offers to slack our packs the remaining 8 miles to HWY 58. He meets us to give us a ride to Mojave. . . I check into White’s Motel with G-Rad and Chucky. Dinner at Denny’s.”

June 6 – “In Onyx, the town drunk wearing a ‘Jesus Saves’ shirt spies me at the small grocery store. He calls a friend to give me a ride to Walker Pass. . . She takes my name for prayers at the church.”

June 14 – “I am fired up today. Feeling strong and wanting to climb (Mt.) Whitney. . . at 1:30 p.m. we reach the summit. We. . . celebrate with a beer each that we packed. On the way down I swim in Guitar Lake. . . We are tired and hungry and the skeeters are bad.”

June 15 – “My feet are great finally, and I feel really strong.”

June 16 – “We reach 13,180 feet at Forester Pass. . . There is a lot more snow on the other side, but the sun has softened it up enough for travel. We use our ice axes for support.”

June 22 – “I am so hungry I could eat a marmot. And I’m getting cranky too.”

Aug. 9 – “Hello everybody out there. I made it through California finally. 1700 mis! I took an unexpected side trip into Ashland. . . I am staying with an old friend. . . he loaned me his car and I am cruising around suburban mall land.”

Aug. 30 – “I have now walked the distance of Oregon!! In 23 days averaging 20 mis a day. . . I had a feet breakdown in Bend and realized some new shoes might help. So I bought my 4th pair of the trip. But this time they are boots . . . 508.4 more miles.”

Sept. 17 – “Hey, I am in Skykomish, WA. . . My last resupply. . . is 98 mis away in Stehekin. . . Then it is 89 mis to Manning Park, Canada, and the end of the Pacific Crest Trail. . . As the end nears I am feeling emotional; memories and views come back to me in waves. As much as I am happy to be off my feet soon and not carrying the weight of my survival on my back, I am overwhelmed with the need to hold on to the beauty of the trail, the freedom of living minimal, and the subculture world my thru-backpacker comrades and I have created for the past 5 mos.” 🌲

Hope Shares®

New contributions of at least \$1,000, the minimum for establishing a Hope Shares® account in the endowment of the Stowers Institute, were received from, or in memory or honor of, the following individuals and foundations between Feb. 8 and Sept. 9, 2002:

\$100,000 or more

American Century Companies
Dunn Family Foundation

\$25,000 or more

Tom and Nancy Juda Foundation

\$10,000 or more

Country Club Bank
Sanders Morris Harris
Mr. and Mrs. Michael Zolezzi
Vernon Voorhees II (In Memory Of)

\$1,000 or more

John and Shirley Wagner

These donors and those they honor will never be forgotten.

The Stowers Report
Vol. V, Issue II
Published by the
Stowers Institute for
Medical Research

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Design and Layout:

Kuhn & Wittenborn Advertising



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