New Discovery May Halt OA Progression
Arthritis National Research Foundation Grant Recipients Discover Body’s Own Molecular Protection Against Arthritis

An international team of scientists, led by ANRF grant recipients Dr. Hiroshi Ashara (2000-2001) and Dr. Shigeru Miyaki (2009-2011), from The Scripps Research Institute in California, in conjunction with the National Research Institute for Child Health and Development in Japan, has discovered a molecule that occurs naturally in the body and counters the progression of osteoarthritis. (see OA, continued on page 5)

Liu’s Engineered Protein May Be New RA Treatment
Arthritis National Research Foundation grant recipient Chuan-ju Liu, Ph.D. (2007-2009) has created a new protein molecule that halts the progression and reverses the disease process in mice with rheumatoid arthritis. Derived from the growth factor progranulin, the protein may provide the basis for new therapies. (see RA, continued on page 4)

Meet Kristy McPherson
Arthritis National Research Foundation Board Member & LPGA Pro

Kristy McPherson, LPGA Tour Professional, is the newest member of the Board of Directors for the Arthritis National Research Foundation. Ms. McPherson is an inspiration to the 300,000 kids in America with juvenile arthritis. At age 11, she was diagnosed with a rare form of juvenile arthritis and told that she would never play competitive sports... (see KRISTY, continued on page 5)

Kramer-Braden Invitational: Tennis Meets Golf for Arthritis Research

On October 8th, the Arthritis National Research Foundation honored two professional tennis legends, Jack Kramer and Vic Braden, with a golf invitational at the Los Serranos Country Club in Chino Hills, California. The event paid tribute to the memory of Jack Kramer... (see GOLF, continued on page 4)
LETTER FROM THE PRESIDENT

We are the charity that funds research to cure arthritis.

And that’s what is most important to the estimated 50 million Americans who suffer from some form of arthritis.

The Arthritis National Research Foundation (ANRF) funds top young scientists studying underlying mechanisms of the most prevalent arthritic diseases to discover new pathways for more effective treatments. You’ll find the recipients of ANRF grants from coast to coast. From Harvard to UCLA, Northwestern to Texas, the University of Colorado to the University of Wisconsin— we provide grants to scientists at major nonprofit research institutions across the country. These are young, brilliant PhD and MD researchers with innovative theories “outside the box” who haven’t yet had the opportunity to explore their ideas. Their new ideas and new questions may yield the next research breakthrough to help the individuals in pain every day.

This year, the Arthritis National Research Foundation will fund 13 such researchers, with grant awards totaling nearly $1 million. The researchers were chosen by our highly selective and world renowned Scientific Advisory Board members who ensure we are funding the best and brightest young scientists.

ANRF’s all-volunteer Scientific Advisory Board has invited two new members during the last two years. World-renowned physician-scientist Mary K. Crow, M.D., director of Rheumatology Research at the Hospital for Special Surgery in New York City is also a past president of the American College of Rheumatology (2005-2006). Our newest Scientific Advisory Board member is Martin Lotz, M.D. of The Scripps Research Institute in La Jolla, California. He is a former ANRF grant recipient and head of the Department of Molecular and Experimental Medicine.

Individual donors remain our most ardent supporters in the effort to increase the number of funding level of research grants. On behalf of the ANRF Board of Directors, I would like to express our heartfelt thanks to all of you who have supported this vital research. A special thank you is extended to The Sontag Foundation (a private family foundation) that has partnered with ANRF for 11 years to completely underwrite a grant each year, honoring each recipient as a Sontag Foundation Fellow. The Sontag family has significantly impacted the field of rheumatoid arthritis research with their commitment.

We would like to express our gratitude for the continued support of over 700 committed individuals each year who donate to ANRF through the Combined Federal Campaign, state campaigns or corporate giving programs. Your support is integral to moving this science forward. Each of you is an important part of the team in the search for a cure.

The Arthritis National Research Foundation is committed to keeping overhead expenses low: 91 cents of every dollar is placed in research programs. Our commitment to finding a cure is as strong, if not stronger, today as when we began over 40 years ago. Charity Navigator, the online charity “watchdog” evaluator, has given ANRF its highest 4-star rating for three consecutive years acknowledging our commitment to excellence and service to the cause.

Each gift we receive brings us one step closer to our goal of eradicating these diseases. We pledge to wisely invest your gift in the best scientific hope for the future.

Sincerely,

James Rose, Pharm.D.
President

JOIN THE TEAM!

Funding research to cure arthritis is not possible without your help. Private donors like yourself make the difference between finding a cure and watching friends, family and loved ones suffer in pain. One person can make a difference in the world. Is that person you?

How to Join the Team:

Make a Donation online or by mail:

Arthritis National Research Foundation
200 Oceangate, Suite 830
Long Beach, CA 90802

Racing For A Cure
Leave a lasting Legacy with a gift in your will
Donate your Car to the Cause!

Learn more at www.CureArthritis.org
# FINANCIAL REPORT 2010

**AUDITED STATEMENT OF PUBLIC SUPPORT, FISCAL YEAR ENDING MARCH 31, 2010**

## REVENUES AND EXPENSES

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<th>Public Support and Revenue</th>
<th>2010</th>
<th>2009</th>
</tr>
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<tbody>
<tr>
<td>Contributions and bequests</td>
<td>3,055,844</td>
<td>2,042,938</td>
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<tr>
<td>Investment Income</td>
<td>717,266</td>
<td>(636,882)</td>
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<td>Unrealized Gain (loss) on Investments</td>
<td>565,959</td>
<td>(643,891)</td>
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**TOTAL SUPPORT AND REVENUE**  
$3,773,110  
$1,406,056

### EXPENSES

**Program Services**  
Research: 1,010,854  
Education: 146,611  
**Total Program Services** $1,157,465  
$1,088,547

### SUPPORTING SERVICES

**Management and General**  
70,218  
**Fund Development**  
21,624  
**Total Supporting Services** $91,842  
$90,471

**TOTAL EXPENSES**  
$1,249,307  
$1,179,018

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<th>2009</th>
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<tr>
<td>Change in Unrestricted Net Assets</td>
<td>2,523,803</td>
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<tr>
<td>Net Assets at Beginning of Year</td>
<td>3,135,547</td>
<td>2,908,509</td>
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<tr>
<td>Net Assets at End of Year</td>
<td>5,659,350</td>
<td>3,135,547</td>
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## STATEMENT OF FINANCIAL POSITION 2010

### ASSETS

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<th>2010</th>
<th>2009</th>
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<tr>
<td>Cash and Cash Equivalents</td>
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<td>889,899</td>
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<tr>
<td>Accrued Interest</td>
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<td>Investments</td>
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<td>Equipment</td>
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<tr>
<td>Total Assets</td>
<td>5,664,196</td>
<td>3,139,388</td>
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### LIABILITIES AND NET ASSETS

#### LIABILITIES

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<tr>
<td>Accounts Payable</td>
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#### NET ASSETS

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</thead>
<tbody>
<tr>
<td>Unrestricted</td>
<td>5,649,064</td>
<td>3,125,261</td>
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</tbody>
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**TOTAL LIABILITIES AND NET ASSETS**  
$5,664,196  
$3,139,388
"The development of this protein extends our understanding of the molecular mechanisms that drive the growth factors and cytokines control of cartilage development and arthritis," said Dr. Liu, the lead researcher and associate professor, Departments of Orthopaedic Surgery and Cell Biology, NYU Langone Medical Center. "Whether the protein accounts for all of the anti-inflammatory effects we observed in the study needs to be replicated, but we are very encouraged by these initial results." Dr. Liu was joined by researchers from across multiple disciplines at NYU Langone Medical Center in the development of this protein.

Over the last 20 years, research in rheumatology has focused on identifying cytokines (cell-signaling protein molecules) leading to the inflammatory and degenerative processes in rheumatoid arthritis. The focus has been on TNF, tumor necrosis factor, the molecule responsible for initiating the inflammatory process in RA and other autoimmune disorders. TNF was discovered by Arthritis National Research Foundation board member and former grant recipient Gale Granger, PhD, in his work at University of California, Irvine.

The researchers suggest that this progranulin-derived protein could result in alternative treatments to those suffering from chronic autoimmune diseases such as rheumatoid arthritis, Crohn’s diseases, ulcerative colitis, ankylosing spondylitis, plaque psoriasis and psoriatic arthritis. There is a lot of testing yet to be done, but the creation of this new protein may one day improve the quality of life for millions suffering in America and around the world.

Source: NYU Langone Medical Center Press Release

GOLF, continued from page 1...

...and his struggle with osteoarthritis, and the memory of Vic Braden’s sister and daughter who both died young of lupus, an autoimmune disease that is part of the arthritis family.

Over $35,000 was raised to fund ongoing research for new treatments, prevention and an eventual cure for arthritis and lupus, debilitating diseases that affect an estimated 50 million Americans. The Arthritis National Research Foundation places 91 cents of every dollar raised directly into research.

Jack Kramer’s Struggle with Arthritis

"I had reached the point in 1949 that I couldn’t lift my arm," said Hall of Fame tennis legend, Jack Kramer. "It was so bad that one doctor advised me to quit professional tennis and find another occupation. But cortisone and later derivatives fixed me up so well that I kept going for a number of years."

Legendary tennis coach Vic Braden, Kramer’s friend for over 50 years and ANRF board member, recalls how much pain his friend was in after just winning a match. “Jack told me, ‘Vic, if you put a thousand dollars on my knee right now I would not be able to reach it.’”

The drugs and therapies that prolonged his career would eventually take their toll, forcing Kramer to retire in 1954.

Vic Braden’s Passion for Lupus Research

Vic Braden serves as a volunteer on the ANRF Board of Directors. Vic’s teenaged sister and daughter died of lupus. He promised his daughter he would do what he could to make the world more aware of this progressive, debilitating and often fatal disease.

Vic Braden met Jack Kramer in 1953. Their friendship spanned more than 50 years until Jack passed away in 2009. Braden is also an icon in the tennis world. As a world-renowned tennis coach, researcher and clinical psychologist, Braden led the way for groundbreaking techniques, psychoanalysis, teaching, commenting and playing. He and Jack were there together in the beginning of what would become the modern pro tennis tour.

Kramer/Braden Golf Invitational

This first annual event honored the memory of Jack Kramer and his struggle with osteoarthritis, as well as the memory of Vic Braden’s sister and daughter, and his pledge to help raise awareness and research funds for lupus. Finally, this event honored the incredible 50-year friendship of two giants in the world of tennis.

“What a great opportunity to tell the world about the arthritic and autoimmune diseases that cause men, women and children from all walks of life to live in pain every day – and the critical need for the research funded by the Arthritis National Research Foundation,” said honoree Vic Braden.

For more information visit www.CureArthritis.org
...again, much less be a champion. Instead, she beat the odds to compete at the highest level in pro golf.

Here is her amazing story in her own words:

I have been competitive in sports my entire life. Before golf, I was involved in softball, basketball and dance. At the age of 8, my father introduced me to golf. At the time, I was more interested in playing team sports like softball and basketball. It was my illness that started my love affair with this crazy game.

At the age of 11, I was diagnosed with Still’s Disease, a rare form of Juvenile Rheumatoid Arthritis (JRA). For the next year, I spent an enormous amount of time in bed, unable to walk, as the arthritis left me immobile. My doctors told me I would no longer be able to compete in softball or basketball. I could not do anything that required running or jumping. In fact, they said, it was possible that I would not be able to compete in any sport again. With determination and the support of my family, I was able to find a sport that allowed me to be competitive.

I enrolled in junior golf and, at 14, I started to play in tournaments. I played American Junior Golf Association events and was a member of my high school boy’s golf team for four years.

A successful high school and junior career earned me a golf scholarship to the University of South Carolina where I majored in Sport and Entertainment management and minored in Business Administration.

I turned professional after graduation in June, 2003. I competed on the Duramed Futures Tour for 3 and a half years before qualifying for the LPGA. I received LPGA exempt status by finishing fourth on the 2006 Duramed Futures Tour money list and started my rookie season in 2007.

I have always been a firm believer that everything happens for a reason. As a 6th grader, not being able to walk seemed like it was the end of the world. It turns out that getting sick was the best thing that ever happened to me! Without getting JRA I would have never done the things or met the people in my life that are so very special to me now.

I know that research is key to finding new treatments and cures. The Arthritis National Research Foundation concentrates its efforts only on research, which is why I am so excited to be involved. I have been truly blessed and I am very grateful for the opportunities that I have had. It is my turn to give back by serving as a role model for children and adults with debilitating arthritis and joining the search for a cure. We need you to join our team in this fight against arthritis; we need your support.

To Follow Kristy visit www.kristymcphersongolf.com

Osteoarthritis currently affects an estimated 20 million Americans and is the most common joint disorder. As our population ages, this number is expected to increase by 50 percent over the next two decades. Current treatments for osteoarthritis focus on reducing pain and inflammation. This discovery is the first breakthrough in stopping and fighting the progression of osteoarthritis.

“Moreover, surprisingly, we observed that microRNA 140 acts against arthritis progression. This is among the first evidence that non-coding RNA plays a key role in age-dependent diseases.”

Osteoarthritis is a degenerative disease in which joint cartilage breaks down due to wear and tear on joints as we age or as a result of injury. Dr. Miyaki says, “This finding may lead to a new therapeutic strategy for osteoarthritis, as well as for conditions that share similar mechanisms, such as spinal disc degeneration.”

This new breakthrough opens the door to find new methods to not only treat and stop osteoarthritis, but also reverse its effects all together. And, because the molecule occurs naturally in the body, side effects would be minimal. New treatments and therapies may be able to correct our body’s natural tendency to break down as we age and allow for a better quality of life.

Source The Scripps Research Institute Press Release

Connect with us...
GRANT RECIPIENTS 2010-2011

Susannah Brydges, Ph.D.
University of California, San Diego

Quanjun Cui, Ph.D.
University of Virginia

Richard DiPaolo, Ph.D.
Saint Louis University

Jeffrey Greenberg, M.D.
NYU School of Medicine

Timothy Griffin, Ph.D.
Oklahoma Medical Research Foundation

Shigeru Miyaki, Ph.D.
The Scripps Research Institute

Thomas Morrison, Ph.D.
University of Colorado, Denver

Sujata Sarkar, M.D.
University of Arizona

Lei Wei, Ph.D.
Brown Medical School/Rhode Island Hospital

Maida Wong, M.D.
University of California, Los Angeles

Joyce Wu, Ph.D.
Harvard Medical School

Yi Yang, Ph.D.
NYU School of Medicine

Jian Zhao, Ph.D.
University of California, Los Angeles

Elaine Husni, M.D., MPH
Cleveland Clinic

GRANT RECIPIENTS 2011-2012

Iannis Adamopoulos, DPhil
University of California, Davis

Massimo Bottini, Ph.D.
Sanford-Burnham Medical Research Institute

Altan Ercan, Ph.D.
Brigham and Women’s Hospital

Jeffrey Greenberg, M.D.
NYU School of Medicine

Hye-Jung Kim, Ph.D.
Dana-Farber Cancer Institute

Xin Li, M.D., Ph.D.
Rush University Medical Center

Yingcui Li, Ph.D.
University of Connecticut Health Center

Peter Nigrovic, M.D.
Brigham and Women’s Hospital

Brian Skaggs, Ph.D.
University of California, Los Angeles

Judith Smith, M.D., Ph.D.
University of Wisconsin

Jian Zhao, Ph.D.
University of California, Los Angeles

Julie Zikherman, M.D.
University of California, San Francisco

Elaine Husni, M.D., MPH
Cleveland Clinic

CFC & Workplace Giving Impacts Vital Research

This past year hundreds of donors from all fifty states – and those serving overseas – chose to give a portion of their livelihoods to the Arthritis National Research Foundation. These generous individuals can choose from hundreds of nonprofits, but they recognize the need for more and cutting-edge arthritis research.

We are honored by their trust to wisely invest their dollars in the critical research and hold ourselves to the highest standard in the search for a cure. As such, we continue to place 91 cents of every dollar we receive into research. Thanks to the continued generosity of the individuals who donate through workplace campaigns, the Arthritis National Research Foundation has increased its support of the vital research needed to put an end to these debilitating diseases. Thank you and we salute you.

Check us out at www.BestofCFC.org

CFC #11031 Please remember us again this fall!
More than 300,000 children suffer from arthritis every day. While their peers are in school, exploring other activities and playing at every opportunity, kids with Juvenile Rheumatoid Arthritis (JRA) spend much of their time in and out of hospitals and doctor’s offices instead.

At the Arthritis National Research Foundation, we’re serious about putting an end to this disease that is so devastating to our children.

Each year, we award $75,000 through The Kelly Award to one of our researchers specifically focused on finding better therapies and a cure for juvenile arthritis. We need your help to continue funding this critical research for children.

1st Kelly Award for Juvenile Arthritis Research

Kelly’s Story:
Kelly Rouba was diagnosed with juvenile rheumatoid arthritis (JRA) at the age of 2 in the summer of 1982. At a time when most parents had no idea that children could get this disease.

Kelly, now 30, serves on the ANRF Board of Directors. The ANRF has created an annual grant called The Kelly Award for Juvenile Arthritis Research and to honor Kelly, her joy of life and her commitment to JA. “I’m so thrilled with this honor; it gives me so much hope and shows my efforts have not been in vain,” she said.

2010 marked the first year of The Kelly Award setting precedent for years to come that juvenile arthritis will no longer be overlooked. “When I saw how juvenile arthritis robbed my little cousin of her childhood, I knew I wanted to do something so that others would not have to suffer as she did,” says Helene Belsile, Executive Director.

“Research holds the key to a better life for millions in our country who face each day in pain.” To learn more about the Arthritis National Research Foundation’s efforts for juvenile arthritis research visit www.CureArthritis.org

Juvenile Arthritis Awareness Month

The month of July is Juvenile Arthritis Awareness Month. In an effort to raise awareness that Kids Get Arthritis Too, the Arthritis National Research Foundation reached out to NASDAQ. NASDAQ agreed that this was an important cause and invited representatives from the Arthritis National Research Foundation and some young friends with juvenile arthritis to ring the bell to open the NASDAQ stock exchange. On this international stage, the Arthritis National Research Foundation was able to let the world know that kids get arthritis too.

Have an idea to raise more awareness or help these kids? Please drop us a line derek@curearthritis.org.

Read more stories at:
www.CureArthritis.org/kids-get-arthritis-too