



## CELEBRATING FRED AND CHRISTINE ARMSTRONG

“Our memories of Fred and Christine, their friendship, warmth, love and dedication to our cause live on in my memory and daily thoughts. Without them, we would not be standing here today,” said Eric P. Gall, MD, co-founder of the University of Arizona Arthritis Center (UAAC).

In 1985, the Arizona Board of Regents approved the establishment of a Center of Excellence in the area of arthritis, joining the other Centers dedicated to the vital disciplines of cancer, heart and pediatrics on UA’s Medical Campus. One of the first steps in launching the Center was the creation of an advisory board, composed of local citizens dedicated to raising awareness and operating funds for the fledgling organization. In 1986, Fred E. Armstrong was named as the first chairman of the UAAC Advisory Board by the late Louis J. Kettle, MD, dean of the

University of Arizona College of Medicine.

An ardent supporter of the Tucson community, Fred filled a vital leadership role in his many business and community activities. In addition to his role as UAAC Board Chair, he served as president of the Tucson Symphony, St. Luke’s in the Desert, Inc., and the Catalina Rotary Club. His wife Christine was a founding member of the Tucson Symphony Women’s Association and subsequently its president. She was instrumental in establishing St. Luke’s in the Desert, donating her time and money to the Pulmonary Clinic throughout her life. It was her inspiration that established the Christine Moon Armstrong lecture series devoted to educating the public on medical issues of osteoporosis.

**“We honor Fred and Christine Armstrong, their vision, commitment and steadfast leadership which made the University of Arizona Arthritis Center a reality.”**

**Robert G. Volz, MD**

*Co-Founder, the University of Arizona Arthritis Center  
Professor Emeritus, Orthopaedic Surgery*

Fred hit the ground running, stating that: “The fight against arthritis is particularly important to Arizonans and others in

*Continued on Inside front cover*

# A MESSAGE FROM THE DIRECTOR



Welcome to the Fall/Winter edition of the UAAC Newsletter. It has been an exciting past several months for the UA Arthritis Center and we look forward to many more to follow.

Earlier this year, two of our fellows completed their training. Dr. Fatima Alnaimat took a private practice position in Minnesota and we were fortunate to recruit Dr. Dominick Sudano to join our faculty. We were also pleased to recruit Dr. Ernest Vina who had worked with me at the University of Pittsburgh. Both Drs. Sudano and Vina presented at the

Annual Meeting of the American College of Rheumatology, the premier venue for clinicians and researchers in rheumatology. In addition, we welcomed two new fellows, Dr. Shariq Chudhri and Dr. Edwin Aquino.

Growing along with our faculty are our medical practice facilities. As we have expanded our care for Southern Arizona communities, we have moved our outpatient clinic and Infusion Center to beautifully renovated facilities at the University of Arizona Medical Center – South Campus located at 2800 South Ajo Way, Suite 103. We look forward to seeing you there.

My research has kept me busy and I was honored to deliver a number of inviting presentations, including: **“Pain in Osteoarthritis: What Has Imaging Taught Us?”** at the International Workshop on Osteoarthritis Imaging held in Reykjavik, Iceland; **“Why Do Women Develop More Knee Osteoarthritis Than Men?”** at Musculoskeletal Sex Differences Throughout the Lifespan Research Symposium in Rosemont, Ill, sponsored by the American Academy of Orthopaedic Surgery, the Orthopaedic Research Society and the Society for Women’s Health; **“Pain in Knee Osteoarthritis: Structural Abnormalities Seen on MRI”** at the The First World Congress of Orthopaedics held in Xi’an, China; and **“Radiographs: Do We Need Them for Diagnosis and Prognosis of Early Osteoarthritis?”** at the First International Early Osteoarthritis Workshop in Tokyo, Japan. I was also honored to be invited as a Visiting Professor at Hong Hui Hospital and Jiao Tong University in Xi’an, China.

I am pleased to continue my work as the Principal Investigator of the Osteoarthritis Initiative (OAI) Clinical Center at the University of Pittsburgh. The OAI is a study to examine the natural history of knee osteoarthritis in a cohort of 4800 individuals across four sites in the U.S. I also continue my work as the Principal Investigator of the Pivotal Osteoarthritis MRI Analyses (POMA), a multi-national study to identify imaging biomarkers, using 3T MRI, of the development of knee osteoarthritis or progression of knee osteoarthritis to important clinical outcomes such as total knee replacement; and a new \$6.1 million grant over five years designed to identify imaging biomarkers of knee osteoarthritis seen on MRI up to 10 years before osteoarthritis is apparent on knee radiographs.

A highlight of the fall was our commemoration of Fred and Christine Armstrong and the Armstrong family’s continuing generosity and support of the UA Arthritis Center. We are pleased to share this with you in our newsletter’s cover story.

In closing, I invite you to be a part of the UAAC’s growing family of programs. We look forward to continuing our dedicated service to the community and maximizing our impact on the world of research as we strive to find a cure for arthritis.

**C. Kent Kwoh, MD**

Director, the University of Arizona Arthritis Center  
Chief, Division of Rheumatology and Clinical Immunology  
Professor of Medicine and Medical Imaging, the University of Arizona College of Medicine  
The Charles A. L. and Suzanne M. Stephens Chair of Rheumatology

*Cover story continued*

the region. We have double the national rate of arthritis because of the attraction of our climate. I feel fortunate to be able to contribute to the effort of combatting this disease, which affects so many,”

A gentle man who wouldn’t take no for an answer, he quickly recruited a cadre of committed, civic-minded leaders to fill the board. Among these was the president of the Southern Arizona Home Builders’ Association, Saul Tobin, who in turn recruited his former business partner Mel Zuckerman, the co-founder (along with wife Enid) of world-renowned Canyon Ranch Health Resort. Thirteen additional board members followed, all with a special reason to be a part of the endeavors of the Center. Each either suffered a form of arthritis, or had a loved one who did.

With the UAAC Advisory Board firmly established, and the UA Foundation as a solid partner, the Center began further development of the framework of its multidisciplinary approach, integrating clinical care, education and bench-to-bedside research. It was recognized as one of the first multi-disciplinary Arthritis Centers in the country by the National Institutes of Health, and only Center of Excellence dedicated to arthritis in the southwest.

The Center’s mission of education and research now in place, and its reputation growing, the board and medical directors then made the determination that a physical facility was needed to secure the prosperity of the Center. Fred and Christine Armstrong once again stepped up and made the lead donation of \$1 million.

Construction of the Center’s new facilities began in 1995, and by 1997, the Center, its research labs, Director’s and administrative offices, library, and conference rooms became a reality. On March 11th the UAAC was officially dedicated to Fred and Christine Armstrong, and a beautiful granite wall was erected in the Center’s reception area commemorating their unwavering support.

Over the next two decades, through the course of multiple renovations, the commemorative wall eventually lost its public visibility. On October 9, 2014, in a heartfelt celebration, the University of Arizona Arthritis Center was rededicated to Fred and Christine Armstrong and a lasting commemoration of their deep faith, generosity and love was unveiled.

# ARTHRITIS CENTER FRIENDS



Once again, I am honored to chair the board of the University of Arizona Arthritis Center (UAAC) Friends. Tucson is indeed fortunate to have a Center of Excellence dedicated to the best treatment and education of people with arthritis! The Center also conducts strong biomedical and clinical research and provides excellent training for medical students, residents, and fellows.

I have always been very proud of the UAAC. I believe that Tucson likely has the most well-educated arthritis patient population in the state, given UAAC's free "Living Healthy with Arthritis" series, in which UAAC faculty members and other healthcare providers present lectures at University of Arizona Medical Center Duval

Auditorium on the first Wednesday evening of each month, and the "active" series at Bio5 on the first Saturday morning of each month led by the renown Canyon Ranch Health Resort staff.

A little about Friends of the UAAC, which was created by the late Eva Holtby in 1997: Its mission is community outreach and education by developing "ambassadors" who educate others about the UAAC. This year our theme is "patient empowerment and participation." The more that patients embrace this concept, the better they do with their arthritis. Yes, it has been proven... Let us show you how!

We welcome you to become a Friends member, for which you will receive luncheon discounts, free registration for January's all-day conference (including breakfast and lunch), and an invitation to the wonderful Breakfast Chat at Canyon Ranch in the spring. Given all these benefits, your yearly membership fee is actually returned to you!

We do want everyone to be able to attend our programs and recognize that individuals with very limited resources may be the very people who might benefit the most from our programs. As a result, we have decided to establish sponsorships for people who would like to attend the Friends' programs but are unable due to financial constraints. These sponsorships will include admission to our Fall Luncheon at Skyline Country Club, February's Arizona Inn Conversations Luncheon, or January's LHWA all-day conference.

I close by asking you to please help us increase our membership base and attend and support our programs. For more information, call 626-7901 or visit the University of Arizona Arthritis Center website.

**Gail Kershner Riggs, MA, CHES**

Interim Chair

## Two New Fellows

### Join the Division of Rheumatology

Fellowship Director and Professor of Medicine Dr. Rafael Grau is pleased to announce the addition of two first-year fellows in Rheumatology, Drs. Edwin Aquino and Shariq Chudhri.



Dr. Aquino completed a six-year medical program on the Dean's List and earned his Medical Doctorate at the Universidad Autonoma de Santo Domingo in the Dominican Republic. He completed his Internal Medicine residency at the University of Nevada School of Medicine in 2014 and worked with former UA fellow, Dr. Susan Knowles. Dr. Aquino is a member of the American College of Physicians and the Dominican Medical College and received the Clinical Vignette Presentation Award by the American College of Physicians. He was honored as the First Year Resident of the Year.

Dr. Chudhri completed his Bachelor's degree with a triple major in biological sciences, chemistry and history at Southern Methodist University in 2007. He earned his Medical Doctorate at the University of North Texas College of Osteopathic Medicine in 2011 and completed his Internal Medicine residency at the University of Arizona in 2014. Dr. Chudhri is a member of the American College of Physicians and the American Medical Association. He was honored in the University of Arizona College of Medicine Annual Case Presentation competition.



## CALENDAR

### UAAC Friends

**January 24, 2015**

**Living Healthy with Arthritis Conference**

**February 12, 2015**

**Eva M. Holtby Arthritis Conversations and Luncheon**

**March 19, 2015**

**Canyon Ranch Breakfast Chat (Members Only)**

### Living Healthy With Arthritis Lecture Series Schedule

**Wednesday, March 4, 2015**

6:00 - 8:30 p.m., DuVal Auditorium

**Special Screening of 'The Connection ... Mind Your Body'**

Moderated by C. Kent Kwoh, MD, and Esther M. Sternberg, MD

**Wednesday, April 1, 2015**

6:00 - 7:15 p.m., DuVal Auditorium

**'Re-thinking Your Health: An Integrative Approach'**

Randy Horwitz, MD, PhD

**Wednesday, May 6, 2015**

6:00 - 7:15 p.m., DuVal Auditorium

**"Osteoarthritis Under the Microscope"**

C. Kent Kwoh, MD

### Living Healthy With Arthritis ~ Canyon Ranch Active Series

**Saturday, February 14, 2015**

**Tai Chi**

**Saturday, March 14, 2015**

**The Power of Pilates**

**Saturday, April 11, 2015**

**Posture and Balance**

**Saturday, May 9, 2015**

**Chair Yoga**

All sessions are held from 10:30 - 11:30 a.m., in the Thomas W. Keating Building, Bio5, Room 103 1657 E. Mabel Avenue

For more information on lectures and active sessions and to register, please visit our website ~

[www.arthritis.arizona.edu](http://www.arthritis.arizona.edu)



Rheumatology Clinic  
Moves to South Campus,

# OPENS DOORS FOR BROADER CARE

University of Arizona Medical Center – South Campus (UAMC) has expanded its treatment, thanks to the recent move of the Rheumatology Clinic and their Infusion Suite from its former location at 535 N. Wilmot. According to Dr. Kwoh, UA Rheumatology Division Chief and Director of the University of Arizona Arthritis Center, the goal is to offer comprehensive, coordinated specialty and interdisciplinary care for patients with rheumatic musculoskeletal diseases, particularly complex patients suffering from co-existing medical conditions or diseases.

“Moving to the South Campus will help coordinate care of complex patients, such as older patients in need of geriatric services and other services for their arthritis,” Dr. Kwoh said. “This includes patients with osteoarthritis and osteoporosis, seen by both Orthopedic Surgery and Rheumatology, those with interstitial lung disease (ILD), seen by Pulmonology

and Rheumatology, and those needing physical and occupational therapy.”

With arthritis being one of the top four complaints for older adults, a multidisciplinary team approach to care allows other outpatient clinical specialties such as Geriatrics,

Internal medicine, Family medicine, Orthopedic Surgery and Pain Management to take advantage of the recent move of the Rheumatology clinic.

With a rapidly aging population, the move to the UAMC – South Campus and the ability to broaden patient care to include other services such as Geriatrics, Pulmonology and Orthopedics is very exciting. Patients have made

many positive comments about the new offices and infusion facilities.

Currently, the Rheumatology team at the South Campus clinic has six faculty members and four fellows dedicated to patient care, with more faculty to be hired in the very near future.

**2800 E. Ajo Way,  
Suite 103,  
Tucson, Arizona 85716  
(520) 694-8888**



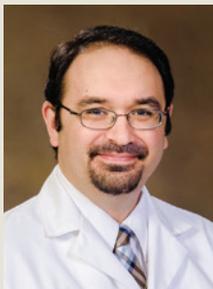
## New Clinical Research Studies!

The University of Arizona Arthritis Center Clinical Research Unit is currently recruiting participants who have been diagnosed with rheumatoid arthritis, osteoarthritis, systemic lupus erythematosus or gout to participate in clinical research studies of new treatments for these diseases. All subjects participating in a clinical trial receive close medical monitoring by a rheumatologist, and all study procedures and investigational medication are provided at no cost to participants. If you or someone you know is interested in participating or would like more information, please contact our Study Coordinator at 520-626-8219.

# TWO NEW FACULTY MEMBERS JOIN UAAC

## AND DIVISION OF RHEUMATOLOGY

The University of Arizona Arthritis Center and the Division of Rheumatology is pleased to announce the addition of two new faculty members and practicing rheumatologists. Center Director and Division Chief C. Kent Kwoh, MD, welcomes Drs. Dominick Sudano and Ernest Vina. Each brings a diverse background along with significant research and clinical interests to the Center and the Division.

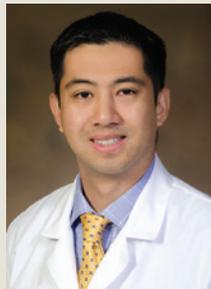


**Dr. Sudano** joins the UA faculty as an Assistant Professor and a practicing rheumatologist after completing his Rheumatology fellowship at the University of Arizona in 2014. He earned his Bachelor's Degree in biochemistry and molecular biology at Pennsylvania State University in 2001 and his medical doctorate from Drexel University College of Medicine

in 2008. He completed his Internal Medicine residency at the University of Arizona in 2012.

His major research interest is the diagnosis and management of coccidiomycoses (Valley Fever) in patients with rheumatic disease treated with disease modifying antirheumatic drugs (DMARDs), corticosteroids and biologic response modifiers.

He is a member of the American College of Physicians, the American College of Rheumatology, the Housestaff Committee at the University of Arizona and the Peer Review Committee for Southern Arizona VA Medical Center. He has authored several articles on topics ranging from exon skipping mutations in collagen, new molecular mechanisms in Muscular Dystrophy and comparative analyses of gene-expression patterns in human and African great ape cultured fibroblasts. Dr. Sudano was the recipient of the Barry M. Goldwater Scholarship and was honored twice as a Howard Hughes Undergraduate Scholar and Fellow.



**Dr. Vina** joins the Center and the Division after serving as an Assistant Professor of Medicine at the University of Pittsburgh School of Medicine and as a staff rheumatologist in the Pittsburgh VA Healthcare System. He was also a core investigator at the VA Pittsburgh Center for Health Equity Research and Promotion, a VA Center of Excellence. He will serve as an Assistant Professor of Medicine in the University of Arizona College of Medicine and a practicing rheumatologist with a particular

interest in systemic lupus erythematosus (SLE or Lupus)

He earned his Bachelor's Degree in psychobiology from UCLA in 1999 and his Medical Doctorate from the Chicago Medical School Rosalind Franklin School of Medicine in 2004. He completed his Internal Medicine residency at Cedars Sinai Medical Center where he also completed a Health Services Research fellowship. His Rheumatology fellowship was completed in 2011 at the University of Chicago Medical Center, where he also earned a Master's Degree in Health Studies.

Dr. Vina's research interests include racial and ethnic disparities in SLE, treatment preferences, racial and ethnic disparities in osteoarthritis, quality of care and health services.

He is a member of the American College of Rheumatology, the American College of Physicians, the American Medical Association and the Society for Medical Decision Making. He has authored numerous publications on racial and ethnic disparities and treatment preferences in SLE, among other subjects.

## Drs. Sudano and Vina were selected as presenters at the American College of Rheumatology Annual Meeting

The conference was held in Boston, Mass., from Nov. 14-19, 2014 and is considered the premier scientific meeting for professionals involved in research, education or delivery of care and services for patients with arthritis and rheumatic diseases.

**Dr. Sudano** presented his research findings titled "Management of Asymptomatic Coccidioidomycosis in Patients with Rheumatic Disease". This study suggests that it may be safe to continue treatment in patients with asymptomatic cocci (Valley Fever). Additional investigators on this project included Drs. Jeffrey Lisse and Neil Ampel from the UA, along with fourth-year Medical Student Varun Bhalla.

**Dr. Vina** delivered his abstract titled: "Improvement Following Total Knee Replacement Surgery: Exploring Preoperative Symptoms and Change in Preoperative Symptoms". This study uses data from the Osteoarthritis Initiative (OAI) to identify predictors of improvement following knee replacement surgery with a focus on the trajectory of patients' symptoms before surgery. Additional investigators on this project included Dr. C. Kent Kwoh from the UA, along with co-investigators from the University of Pittsburgh.



# 'The Healing Power of Sleep'

## to Highlight 2015 Living Healthy With Arthritis Conference

Led by University of Arizona sleep specialist Sairam Parthasarathy, MD, the 2015 Living Healthy With Arthritis Conference will delve into one of the most provocative subjects in medicine and society – Sleep.

Millions of Americans unwittingly shortchange themselves on sleep without knowing the compromising effects that can ensue. We feel a bit tired after inadequate sleep, maybe even groggy. We may need that extra boost of caffeine and then on with the many tasks of daily life. Problem solved. Problem not solved.

Research shows that failing to get enough sleep night after night can compromise your health and may even shorten your life. From infancy to old age, the effects of inadequate sleep can profoundly affect memory, learning, creativity, productivity and emotional stability along with all aspects of physical health.

According to sleep specialists like Dr. Parthasarathy, a number of bodily functions are negatively affected by inadequate sleep: the heart, lungs, and kidneys; appetite, metabolism and weight control, immune function and disease resistance; sensitivity to pain; reaction time; mood; and brain function. Sleep affects almost every tissue in our bodies.

Dr. Parthasarathy leads the team of sleep specialists at the University of Arizona and has helped develop the first and only training program for physicians in this specialty in the state of Arizona. "We are the first sleep fellowship program in the state. As a central focus, the UA now has a greater opportunity to educate the community and provide cutting-edge clinical care and research. Educating the public, coupled with training future doctors in this specialty provides a winning combination.

**Joining Dr. Parthasarathy at the 2015 LHWa Conference are the following presenters:**

**C. Kent Kwoh, MD**

Director, the University of Arizona Arthritis Center  
Chief, Division of Rheumatology and Clinical Immunology  
Professor of Medicine and Medical Imaging, the University of Arizona College of Medicine  
The Charles A. L. and Suzanne M. Stephens Chair of Rheumatology

**David Bornstein**

Meditation Practitioner  
Canyon Ranch Health Resort

**Brian Erstad, PharmD**

Professor, Department Head, Pharmacy Practice & Science, the University of Arizona

**Eric P. Gall, MD, MACP, MACR**

Professor of Medicine, Rheumatology  
The University of Arizona College of Medicine

**Ronnie Grate**

Fitness Specialist  
Canyon Ranch Health Resort

**Rafael Grau, MD**

Associate Professor of Medicine, Rheumatology  
The University of Arizona College of Medicine

**Jeffrey R. Lisse, MD**

Professor of Medicine, Rheumatology  
The University of Arizona College of Medicine  
The Ethel McChesney Bilby Chair for Osteoporosis

**Ann Pardo, MA**

Director of Life Management  
Canyon Ranch Health Resort

**Joseph E. Sheppard, MD**

Professor, Orthopaedic Surgery  
The University of Arizona College of Medicine

**John Szivek, PhD**

Director, the Robert G. Volz, MD, Orthopaedic Research Laboratory  
The William and Sylvia Rubin Chair of Orthopaedic Research  
Chair, Biomedical Engineering Graduate Interdisciplinary Program, the University of Arizona

**Joyce Wu, Ph.D**

Assistant Professor of Immunology, the University of Arizona

## 2015 LIVING HEALTHY WITH ARTHRITIS Conference

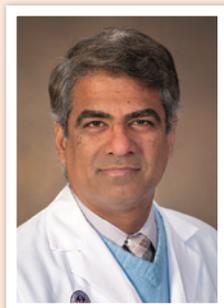
**Date:** Saturday, January 24, 2015

**Time:** 9:00 a.m. – 3:45 p.m.

**Location:** The University of Arizona  
Medical Center ~  
University Campus  
1501 N. Campbell Avenue

**Cost:** \$15 per person  
\$20 after 1/12/15

**Free to members of the Friends of the University of Arizona Arthritis Center. (Registration required)**



Sairam Parthasarathy, MD

Parthasarathy is also the Program Director for the UA's Sleep Fellowship program and an Associate Professor of Medicine in the UA's College of Medicine. He is also a member of the American Thoracic Society and the Sleep Research Society, a member of

As the Director of the UA's Center for Sleep Disorders, Dr. Parthasarathy brings a fresh approach to an age-old dilemma. His cutting edge research and determination to find answers is helping the UA develop one of the premier programs in the country.

Currently the Chair of the Research Committee for the American Academy of Sleep Medicine, Dr.

the Advisory Board of the Sleep Disorders Research division of the National Institutes of Health, the Chair of the Grant Review Committee for the American Sleep Medicine Foundation, the Associate Editor of the Journal of Clinical Sleep Medicine, and on the Advisory Panel of the UA Respiratory Disease Committee. Additionally, he serves on the Steering Committee for ADVENT, on the Editorial Board for ACCP-SEEK Sleep Edition and is the Chair of DSMB, OSA and Bariatric Surgery committees of the National Institutes of Health.

He is Board Certified in Sleep Medicine, Internal Medicine, Pulmonary Medicine, Critical Care Medicine and is a Diplomate of the American Board of Sleep Medicine. He currently holds grants from the National Institutes of Health and the Patient Centered Outcomes Research Institute.

**For more information, please call (520) 626-5040, email [livinghealthy@arthritis.arizona.edu](mailto:livinghealthy@arthritis.arizona.edu), or visit the UAAC website at [www.arthritis.arizona.edu](http://www.arthritis.arizona.edu).**

A photograph of a woman with short dark hair and glasses, wearing a white lab coat, smiling in a laboratory. In the background, there is a microscope and various lab equipment.

# A Breakthrough Discovery

Dr. Wu was recruited by the Department of Immunobiology and the University of Arizona Arthritis Center (UAAC) because of her research expertise in the field of gut microbiota (normal bacteria) and host interaction. Dr. Wu has been an Assistant Professor at UA since 2011. Before her arrival at UA, she was trained as a postdoctoral fellow by Drs. Diane Mathis and Christophe Benoist at Harvard Medical School and studied one of the most detrimental autoimmune diseases, rheumatoid arthritis (RA). RA is particularly prevalent in the state of Arizona, where the dry climate attracts many RA patients. The low concordance rate of RA in monozygotic twins (15%) compared to other autoimmune diseases suggests the importance of environmental factors such as microbiota in RA development.

At UA, the research of Dr. Wu and her team continues her long-standing interest in microbes and RA, and aims to increase the understanding of a newly-emerging medical field: how the imbalance of gut microbiota (likely due to improper diet and usage of hygiene products and/or antibiotics) alter our health. RA is a systemic autoimmune disorder that classically involves joint disease, but can also affect other organs. Pulmonary complications, which are common extra-articular manifestations, account for 20% of mortality in RA. Dr. Wu's research involves both mechanistic studies of joint and lung pathology in RA. One of her most significant research contributions has been to provide the missing links between gut microbiota and extra-intestinal disease. Notably, her results confirmed the hypothesis that a "benign" species of gut microflora can turn aggressive and act as an environmental trigger for autoimmune arthritis in genetically-predisposed mouse models. Her study is the first to reveal a mechanism by which a change in a single type of gut bacteria that usually lives within us without causing any difficulties can cause an inflammatory response by our own immune system which then leads to the development of arthritis.

Within a year and a half of her arrival at UA, Dr. Wu submitted a grant proposal that was awarded an National Institutes of Health R56 bridge fund (\$250,000 for one year), followed by an

NIH R01 grant (\$1,250,000 over five years). Aside from her own funding, Dr. Wu has collaborated with Kenneth S. Knox, MD, Chief of the UA Division of Pulmonary, Allergy, Critical Care, and Sleep Medicine, and together they have secured an NIH grant to examine how the microbiota and genes can interact to cause HIV-associated lung diseases. Aside from government funding, Dr. Wu has also received a generous donation for her research from the Southwestern Clinic and Research Institute, Inc. (SCARI) Board.

In addition to research and teaching, Dr. Wu also participates in UAAC community awareness and educational events. In these events, she interacts with RA patients and their families to explain her research and how it will help pave the way for RA's future therapies. These events not only help raise funds for the UAAC but also, most importantly, connect the academic and lay communities. Dr. Wu feels that participating in these events is among her most rewarding experiences, as she directly witnesses her team's hard work in translational research giving so much hope to RA patients. To further bridge the arthritis research team at UA and the lay community, the Center has opened Dr. Wu's lab to the public, offering tours with the goal of stirring public interest and awareness in this important field of medical research.

Thus far, imbalance of microbiota in our bodies has been implicated in a wide variety of diseases such as obesity, diabetes, autism, allergy, cancer, infection, cardiovascular disease, and many autoimmune disorders. The research goal of Dr. Wu and her team is to translate the immune modulating role of microbiota into novel therapies for autoimmune disease. The excitement of her research work is demonstrated by her numerous invitations to speak at national meetings, international meetings, and universities. With the aid of extramural NIH and private SCARI funds, her team aims to continue producing exceptional research. The results of her studies not only will change how we view RA but, most importantly, will help further the design of microbial and immune-based therapies for RA in the future.

# Would you like a guaranteed income for life?

## What is a charitable gift annuity?

An agreement in which you transfer cash or other assets to the University of Arizona Foundation in exchange for its promise to pay you an annuity or income for life. You may enjoy numerous tax advantages in the process.



### How it works

1. You make a gift of cash or marketable securities to the UA Foundation.
2. The UA Foundation invests the assets and pays you fixed annual payments for life (and to another beneficiary if desired).
3. Upon the death of the last beneficiary, the remaining funds are distributed to your area of interest at the University of Arizona Arthritis Center or other UA area.

### Suggested maximum gift annuity rates One Life

Age	Immediate	5 year deferral
65	4.7%	5.1%
70	5.1%	6.8%
75	5.8%	7.9%
82	6.8%	9.1%
85	7.8%	10.5%
90+	9.0%	10.5%

### Learn more at

[www.uafoundation.org/giftplanning](http://www.uafoundation.org/giftplanning)

For a personalized presentation on how a gift annuity could complement your investment portfolio, contact the Gift Planning at 520-621-1993 or 800-845-4877.

## The University of Arizona Arthritis Center Mission

The University of Arizona Arthritis Center is dedicated to making a difference in the lives of patients. We do this through research ranging from molecules to people by empowering patients in taking charge of their lifestyles and by educating care providers and scientists to develop and apply novel and more effective therapies.

## LET US HELP YOU CREATE A LEGACY

(please check boxes for all that apply)

- I would like a personal illustration outlining benefits for:  
Me; my birth date is \_\_\_\_\_.  
Beneficiary #2; whose birth date is \_\_\_\_\_.
- I have a question. Please contact me by:  
phone \_\_\_\_\_  
best time to call: \_\_\_\_\_ a.m. / p.m.  
email \_\_\_\_\_
- I have included the UA in my will or estate plan.

### Thank you for supporting the University of Arizona Arthritis Center.

We respect your privacy. Information collected here will be kept strictly confidential. It will not be sold, rented, loaned or otherwise disclosed, and it will not be used in ways to which you have not consented.



Gift Planning does not provide any legal or tax advice. Please contact your own independent legal or tax counsel.

### The University of Arizona Foundation

1111 N. Cherry Ave., PO Box 210109  
Tucson, AZ 85721-0109  
520-621-1993 or 800-845-4877

## Greetings from Advisory Board Chair

In 1990 I was introduced to the University of Arizona Arthritis Center (UAAC) and soon joined the board. The UAAC is the Center of Excellence in Arizona focused on finding treatments and eventually a cure for musculoskeletal diseases.

Do you know what it is like to live with chronic pain? Have you stopped doing the things you love because of the debilitating pain of arthritis? Imagine a future without the pain of arthritis. The goal of the physicians, investigators, staff and students of UAAC is to fight the pain of arthritis. As a member of the board and a supporter of the UA Arthritis Center, I have learned first hand how they are making a difference in the lives of people living with arthritis.

Dr. Joyce Wu, Ph.D. is an immunobiologist and member of the UAAC. Her team is doing research into a possible connection between the bacteria (micro-biota) we live with every day and the onset of rheumatoid arthritis. Scientific discoveries made by basic scientists like Dr. Wu lay the groundwork that eventually will lead to treatments and possibly a cure for rheumatoid arthritis. Your tax-deductible gift to the University of Arizona Arthritis Center in support of her research helps fight the pain of arthritis.

During my years on the UAAC Advisory Board I have learned so much about arthritis. For example, I learned that osteoarthritis, the most common form of arthritis and the one often referred to as wear and tear arthritis does not have to be an expected part of aging.

Dr. John Szivek and his team are doing research that we hope one day will make knee replacements unnecessary. Dr. Szivek's work using a patient's own stem cells to replace damaged knee cartilage will revolutionize joint replacement therapies. If you or someone you love has been impacted by the pain of osteoarthritis, please consider a gift to the UAAC in support of research. Your fight will make this non-invasive treatment a reality.

These are just two examples of how the University of Arizona Arthritis Center is changing lives.

Together, you and I and other generous people like you will eradicate the pain of arthritis!

**Mark Mitchell, Board Chair**

## FALL/WINTER EDITION

A Center of Excellence at the UA College of Medicine, The University of Arizona Arthritis Center (UAAC) is dedicated to biomedical research into the causes and treatments of more than 100 forms of arthritis. Understanding the ways that arthritis, bone and connective diseases start and progress is the key to helping individuals with arthritis lead healthier lives.

### UAAC Advisory Board Members

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