November/December 2007

۲



Patricia Hsu, M.D. (left) ran the 10K run segment for Team OREF in the 2007 Chicago Triathlon.

Shands Member Leads Team OREF to Victory, Raises \$14,250 for Research and Education

MPACT

iven that physical fitness enhances orthopaedic health, should orthopaedic surgeons practice what they preach? Yes, says OREF Corporate Advisory Committee member, Shands Circle donor, and avid cyclist **Alexander J. Ghanayem**, **M.D.** Dr. Ghanayem was personally committed to *walking the walk* with patients staying limber, maintaining a good weight, and conditioning joints and muscles to avoid osteoarthritis and other debilitating conditions but thought he might do a better job with a little help from some friends.

This spring, Dr. Ghanayem, professor, Department of Orthopaedic Surgery and Rehabilitation and director, Division of Spine Surgery at Loyola University, Chicago, challenged two Loyola colleagues

continued on page 8

NO. 4

()

Finding Answers in Good Time

OREF's Resident Research Symposia Help Residents Stay Current

ager to learn from as many patient cases as they can, orthopaedic residents have their hands full treating patients, yet some are motivated to take on the additional role of researcher. With this in mind, OREF provides funding and educational programs that help residents explore research as a possible career focus.

OREF has long supported gifted investigators, from the earliest stages of their careers, providing more than \$5.2 million in resident grants and awards in the last decade alone. OREF's Resident Research Symposia allow residents to learn from leading investigators while sharing their research projects with their peers.

Peer-Mentor Pressure & Support

Held annually in Boston, Chicago, and New York, the OREF Resident Research Symposia award cash prizes to the top three presenters in each city. Supported each year by one of OREF's Corporate Associates, the program may also include guest speakers, practice management seminars, or poster competitions. Synthes and Synthes Spine provided support for the 2007 OREF Resident Research Symposia.

This year, at the Midwest Resident Research Symposium, Harold J. Schock III, M.D. took home first prize in the clinical category, and Todd A. Irwin, M.D. won in the basic science category.

In this Issu	e	continued on page 12
Page 5	Discover the tax benefits of year-end giving	
Page 6	Arizona physician group makes significant contribution for second year	
Page 10	Pfizer partners with OREF to learn about patients' needs	

www.oref.org

From the Board Chair

۲

Volume XI



John J. Callaghan, M.D. Board Chair

About Impact

Impact is published quarterly by the Orthopaedic Research and Education Foundation, a 501 (c) (3) tax-exempt organization under the Internal Revenue Service tax code.

Managing Editor: Sharon Johnson

Editor:

Amy Kile

Please direct comments about this publication to communications@oref.org

OREF has benefited from tremendous growth in the Platinum Level of Shands Circle membership in recent years. These gifts of \$1 million or more are crucial to the permanent success of OREF and will enhance our role in **Discovering the Future of Orthopaedics.** The following is the roster of Platinum-level Shands Circle donors as of Nov. 1, 2007.

Leaving a Legacy:

Shands Platinum Level Grows as More Donors Provide Permanent Funding for Research

he Shands Platinum Level - \$1 million or more is the highest level of donor recognition at OREF, and we are proud so many have decided to make investments in the future of orthopaedics with such generous support.

Within the past few months **Drs. David** and **Shirley Polly** made a \$1 million life insurance policy commitment, meaning they will join the ranks of Platinumlevel Shands members. Already Platinum-level donors, **Dr. Dane** and **Mrs. Mary Louise Miller** recently increased their commitment by contributing a stock gift valued at nearly \$3 million to OREF.

Michael J. Axe, M.D., Mr. John and Mrs. Rosemary Brown, Mrs. Carol Raymond and the late Mr. Frank Raymond,

Drs. Behrooz Akbarnia and Nasrin Owsia Michael J. Axe, M.D. Mr. and Mrs. Leander D. Beard Mr. John W. and Mrs. Rosemary Brown Dr. John and Mrs. Kim Callaghan

Dr. and Mrs. James C. Chow Dr. Richard and Mrs. Stephanie Coutts Alvin H. Crawford, M.D. Dr. and Mrs. Zachary B. Friedenberg Dr. Freddie H. and Mrs. Hilda P. Fu

Dr. Victor and Mrs. Harriet Goldberg

Dr. and Mrs. Jorge O. Galante

and the **Dr. and Mrs. Charles Rockwood Family** also made \$1 million contributions in the past two years. All of these gifts are significant contributions that will drive orthopaedic advancements and improve patient care in perpetuity.

Named Legacy Awards

Many gifts will be dedicated to individual research awards, such as an OREF Research Grant, a Clinician Scientist Award, or a Career Development Award. Each will bear the name of the donor or donors. By creating such awards, the donors establish permanent support for young researchers and ensure that they have left their own legacy in orthopaedics. A named award funded by a \$1 million endowment within OREF means there will always be one additional \$50,000 per-year

Dr. William and Mrs. Lynn McMaster Dr. Dane and Mrs. Mary Louise Miller Dr. and Mrs. Mahendra R. Patel Dr. Timothy and Mrs. Helen Payne David W. Polly Jr., M.D. and Shirley M. Polly, M.D. Mr. Frank Raymond⁺ and Mrs. Carol Raymond Dr. and Mrs. Charles Rockwood Family Ms. Ronda E. Stryker and Mr. William D. Johnston Dr. and Mrs. Stuart L. Weinstein ⁺ Deceased research grant to award to a gifted young investigator, generation after generation.

Gift Planning Tools

Creating such gifts can be easy due to the number of planned giving tools available. Some of our current gifts have been funded by cash or stock paid over a number of years, either from the individual or a family foundation. Others are estate gifts, such as an outright bequest or a trust arrangement. Some are given through insurance policies and one flows from a stream of royalty income.

How Will You Leave Your Legacy?

Please don't hesitate to contact us to discuss your own interest in supporting research with a Legacy Gift, which will help us meet our goal of an additional \$6 million by year-end, the close of OREF's 50th Anniversary Campaign. For more information about gift planning, please see **Gene Wurth's** column on page 3 and visit **www.oref.org/giftplanningguide.** ()

Sincerely,

John J. ¢allaghan, M.D. Board Chair

2007 Board of Trustees – Executive Committee

۲

Chair John J. Callaghan, M.D.

Vice Chair, Grants Thomas A. Einhorn, M.D. Vice Chair, Development William P. Cooney III, M.D.

Vice Chair, Corporate Relations S. Terrance Canale, M.D. Vice Chair, National Board Mr. H. Michael Immel

Treasurer William J. Robb III, M.D. Secretary Regis J. O'Keefe, M.D.

Chair-Elect William P. Cooney III, M.D.

10R350.indd 2

From the President and CEO

Plan Your Future with OREF's New Planned Giving Web Site

s 2007 draws to a close and you consider your tax planning and charitable giving options, take advantage of OREF's enhanced planned giving Web site, www.oref.org/giftplanningguide.

Among other pertinent topics, the site provides you with up-to-date planned giving information, including a glossary of commonly used estate planning and gift planning terms, pros and cons of living wills, and how to choose the right type of trust.

The *build your gift* option allows you to answer a series of questions to learn which type of planned gift best fits your philanthropic goals and lifestyle as you plan for your family's future. In addition, the site allows you to select and compare up to three different types of gifts to explore the advantages and disadvantages of each. A gift calculator is available to aid planning as well.

Your professional advisors will find the exact language they need to use when incorporating OREF into legal documents and information that will help them advise you on charitable estate planning issues. The staff at OREF can discuss with you your particular interests in supporting research with a Legacy Gift, as **Dr. John Callaghan** talks about in his column on page 2, and explore how financial planning might best work for you. We can also connect you with financial planners, including several whose only clients are physicians and therefore know the medical world very well. Please note that one very helpful tool for making gifts will expire soon. The Pension Protection Act ends on Dec. 31, 2007. It allows transfers of up to \$100,000 directly from your qualified retirement plan to OREF without any tax consequences. Please talk with your financial advisor to learn how to take of advantage of this helpful tool.

Thanks to all of you for your wonderful support of OREF. Your practice and your patients will benefit for years to come from advances in research.

Sincerely,

Lene R. Wurth

Gene R. Wurth President and CEO

Gene R. Wurth President and CEO

Contact OREF

For more information about planned giving and Legacy Gifts, please contact:

Gene Wurth President and CEO (847) 384-4362 wurth@oref.org

Ed Hoover Vice President, Development hoover@oref.org (847) 384-4354

Planned	Giving
Vahida	

Vehicle	Description		
Bequests	Directed assets transferred to OREF. May include cash, stock, or property.		
Charitable Lead Trust	If your goal is to provide an inheritance for your children, but you would also like to make a significant charitable gift through your estate, a charitable lead trust can help you satisfy both objectives.		
Charitable Remainder Trust	A charitable remainder trust can increase your income, reduce your taxes, unlock appreciated investments, rid you of investment worries, and ultimately provide very important support for orthopaedic research and education.		
Retained Life Estate	One of your valued possessions, your home, can become a valued gift to OREF even while you are still living in it, even if you want your spouse or other survivor to live there for life. This arrangement is called a retained life estate.		

		2007 Board of Trustees		
Behrooz A. Akbarnia, M.D.	Mr. Charles W. Federico	Ramon L. Jimenez, M.D.	Mr. Richard D. Nikolaev	Past Board Chair
James R. Andrews, M.D.	Freddie H. Fu, M.D.	Frank B. Kelly, M.D.	Peter J. Stern, M.D.	Charles A. Rockwood Jr., M.D.
Richard A. Brand, M.D.	Jo A. Hannafin, M.D., Ph.D.	Mr. Edward B. Lipes	James W. Strickland, M.D.	Ex Officio Gene R. Wurth
Mr. Joseph M. DeVivo	Richard J. Haynes, M.D.	Joseph C. McCarthy, M.D.		President and CEO

www.oref.org/giftplanningguide

he President

۲

November/December 2007

Shands Circle Update and Planned Giving

۲



Volume XI

Joseph C. McCarthy, M.D. Chair, Shands Circle Committee

Mark Your Calendars for the 2008 Shands Circle Gala

t is hard to believe that the 2008 Annual Meeting is just a few short months away. Soon it will be time again to learn about the advancements and innovations in orthopaedics. It will also be time to socialize with peers we don't have the opportunity to see as often as we would like.

Held in the Peacock Court at the InterContinental Mark Hopkins San Francisco, OREF's 14th Annual Shands Circle Gala will be a great place to become reacquainted with friends and welcome the newest members of our Circle while enjoying the sights of San Francisco through floor-to-ceiling windows and appreciating the ambiance of a locale that has hosted presidents, royalty, and celebrities.

To maximize the amount of donated funds available to support research, the OREF Shands Circle Committee has recommended that those attending the Shands Circle Gala pay a reasonable amount to offset part of the cost of the evening. A survey of Shands Circle members showed that

OREF'S 14TH ANNUAL Alfred R. Shands Jr., M.D. Circle Gala

THURSDAY, MARCH 6, 2008

INTERCONTINENTAL Mark Hopkins San Francisco Number one nob Hill 999 California Street San Francisco

RECEPTION: 6 P.M. Dinner: 7 p.M. Live Music and Dancing: 8 p.M.

BLACK TIE OPTIONAL

Contact OREF

For more information about planned giving and Legacy Gifts, please contact:

Gene Wurth President and CEO (847) 384-4362 wurth@oref.org

Ed Hoover Vice President, Development (847) 384-4354 hoover@oref.org

Shands Circle Benefits

Shands Circle members receive many benefits, including:

- VIP housing at the AAOS Annual Meeting
- Invitations to OREF's annual Shands Circle Gala, a black-tie optional dinner and reception
- Access to OREF's exclusive Shands Circle VIP Suite at the AAOS Annual Meeting
- Gold lapel pin featuring the Shands Circle logo
- Significant recognition at the AAOS Annual Meeting and through other vehicles, including OREF's publications

www.oref.org/giftplanningguide

Shands Circle Update and Planned Giving

۲

November/December 2007

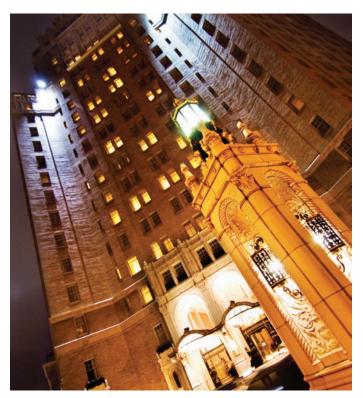
more than 90% of those who responded agreed. For 2008, \$125 per person is the amount we request for the dinner and reception, and \$35 is the amount for the reception only. This should make more than \$35,000 available for 2009 research grants.

You will receive your invitation and registration information in January 2008. Registration will also be available online at **www.oref.org**. For more information about the 14th Annual Shands Circle Gala please contact **Maureen Corcoran**, director, Shands Circle programs, at (847) 384-4360 or **corcoran@oref.org**.

We hope to see you there, and that 2008 is even more successful for the Shands Circle. As of Nov. 1, 2007 more than 500 members made up the Shands Circle, including 37 who became part of Shands this year. Sincerly,

loseph C. M. Conthing mD.

Joseph C. McCarthy, M.D. Chair, Shands Circle Committee



The 2008 Shands Circle Gala will be held at the InterContinental Mark Hopkins San Francisco

Discover the Tax Benefits of Year-End Giving

o you have additional income this year, perhaps from an extra bonus or from selling some investments? If so, your tax planner may advise you to do some charitable tax planning before year-end to lower your taxable income. Please consider OREF when evaluating your options.

To reduce your taxable income this year, consider making a cash gift. Cash gifts are deductible up to 50% of your adjusted gross income.

Another simple charitable gift to make before year-end is a gift of appreciated stock. Maybe you have stock you were contemplating selling but just haven't had the time to sell it. If so, instead of selling the stock and incurring potential capital gain income, consider giving the stock to OREF. The value of the stock is deductible in the year of the gift to the extent that the stock's value doesn't exceed 30% of your adjusted gross income. Any excess deduction can be used in the next five years. Alternatively, you might consider making a planned gift before year-end. Planned gifts can provide you with lifetime income and improve your tax situation. Planned gifts, however, are generally not as fully deductible as a direct gift, so depending on the amount of your tax deductions and income needs, you may prefer to make a direct gift.

Be sure to have the gift finalized and postmarked by midnight on Dec. 31 to count against this year's taxable income. If you prefer to make a gift with a credit card, you can deduct the gift in the year the charge is incurred — even if the bill is not paid until the following year. For planned gifts, be sure to have all the documents signed and implemented by the end of the year.

We can help you decide the best charitable gift for your situation. For more information, please contact your financial planning advisor or OREF. Additional planned giving information is now available at www.oref.org/giftplanningguide.

The Stelter Compa

The information in this publication is not intended as legal advice. For legal advice, please consult an attorney. Figures cited in examples are based on current rates at the time of printing and are subject to change. References to estate and income tax include federal taxes only; individual state taxes may further impact results.

You can make your 2007 Annual Campaign contribution now by logging on to www.oref.org/donate

۲

www.oref.org

Institutional Giving

۲

Giving the Gift of Education: Arizona Physician Group Makes

fter another unanimous vote, the Orthopedic Surgeons Network of Arizona (OSNA) made a \$100,000 contribution to OREF for the second straight year as a demonstration of the importance education and research hold for its members.

Volume XI

Spine surgeon and OSNA Executive Committee member **William R. Stevens, M.D.** stated, "We hope to lead by example. If we as a community of orthopaedic surgeons can make this commitment, we would hope that others would follow."

Many OSNA members have independently supported OREF with Order of Merit level contributions for a decade or more. OSNA members considered that an organized, aggregated, and substantial donation would encourage greater numbers of institutions, orthopaedic group practices, and other friends of OREF to contribute as well and, hopefully, in similar amounts. This gift has also brought greater awareness of OREF's mission to OSNA's members, particularly those just starting their careers who might be less familiar with avenues to give to the profession that supports their livelihood.

Founded in 1994 to respond to the challenges of decreasing reimbursement in a heavily managed care environment in the Phoenix metropolitan area, OSNA has grown to over 80 practitioners in multiple, independent private practices that have joined forces through incorporation. A move is currently underway to consolidate as a single group practice to enhance their professional goals. As an organization, OSNA has dedicated itself to quality patient care through strict peer review and application of quality assurance guidelines to ensure that they are a resource not only to

their members, but also to the insurers who appreciate the added value of consolidated, provider contracts.

According to OSNA Co-founder and President John K. Bradway, M.D., the organization seeks also to improve patient care through support of research and education. "You have to give to the orthopaedists who have that little something inside of them that will take them the extra mile to do work outside their clinical practice and seeing patients."

A number of OSNA providers have embarked upon research activities within their clinical

۲

practices, and participate in research and educational activities locally and on a national level. Marc J. Rosen, M.D., vice president of OSNA, has an interest in blood conservation during joint replacement surgery and has studied methods to reduce the frequency of transfusion for patients undergoing hip and knee replacement surgery.



Dr. Thomas Carter (left) and Dr. John Bradway stopped by OREF's exhibit at the 2007 AAOS Annual Meeting.

"Clinical and basic science research is essential to the improved care of our patients," Dr. Rosen said. "We feel it is an obligation of every physician to support efforts to improve the quality of patient care, and the most basic commodity in this task is to enhance physician education and to support research."

In Dr. Bradway's opinion, support of those who devote their careers to research benefits all through knowledge gained. "If we are not giving up that time ourselves we need to give our support and our financial resources. We need to take an interest and to support the researchers, to let them know that their research is important to all of us."

Thomas R. Carter, M.D. is another OSNA physician with an interest in research. He participates in numerous research projects and is a frequent guest lecturer on the subject of knee surgery. Dr. Carter's perspective and his firsthand knowledge have further encouraged his OSNA colleagues to continue their exceptional level of support for OREF.

Dr. Carter explained that, in addition to focusing on a full-time clinical practice, "It takes a significant amount of time to conduct research and educate others. The orthopaedic surgeons who enter academics should be complimented since



OSNA Board member Dr. J. F. James Davidson (left) and OSNA Vice President Dr. Marc Rosen discussed current topics at the OSNA retreat.

www.oref.org

10R350 indd 6

Institutional Giving

۲

November/December 2007

s Significant Contribution to OREF for Second Straight Year



Every 18 months OSNA holds a retreat during which members have an opportunity to socialize, review the organization's accomplishments, and set new goals. Pictured: OSNA doctors get ready for a retreat session to begin.

this career path commonly results in less income and time away from their families. This is where money from organizations such as OREF can help — in supporting these individuals who pursue and share this work. Even OSNA members who are private practitioners not affiliated with academic institutions appreciate the benefits that continuing education and innovations through research have brought to their own individual practices and how their patients have benefited."

Dr. Carter's current interests are in the area of articular cartilage damage in the knee and, in particular, the use of meniscal allografts. He has been active in teaching colleagues to perform meniscal allograft procedures and is grateful to those organizations that have facilitated his work. He has seen firsthand the benefit to those for whom he has cared.

"When I began performing meniscal allograft reconstructions in the early 1990s, the procedure was considered experimental and performed by just a few surgeons. By the critical analysis of the data and teaching others from our experiences, we have seen it become an accepted procedure performed by many. I realized that the number of lives that only a few surgeons could help is now

۲

multiplied several fold; it certainly opens one's eyes as to the significance of OREF," said Dr. Carter.

Every 18 months OSNA holds a retreat during which members have an opportunity to socialize, review the organization's accomplishments, and set new goals. At this event, Dr. Bradway polled those assembled on their opinions regarding the annual contribution of \$100,000 to OREF.

"We asked people how they felt about the donation and whether or not they wanted to do it again," Dr. Bradway recalled. "I was a bit surprised by their unanimous support for the donation. The board of directors has the final voice in the process but it would be hard to argue with such an overwhelming confirmation of support."

Further, Dr. Bradway relates, "Funding for research today is grounded much more solidly in exquisite studies looking at specific questions and trying to answer these in the most scientific way. The competition for these funds is extraordinary, and many worthy projects cannot currently be funded. If we are to maintain the quality of our clinical practice, sound evidence-based medicine is needed. The place to start in our specialty is with OREF."

"It takes a significant amount of time to conduct research and educate others. The orthopaedic surgeons who enter academics should be complimented, since this career path commonly results in less income and time away from their families. This is where money from organizations such as OREF can help in supporting these individuals who pursue and share this work." — Thomas R. Carter, M.D.



(left to right) OSNA Board member Dr. Evan Lederman with Dr. Richard Martin, and Dr. Richard Shindell at the OSNA retreat.

www.oref.org/giftplanningguide

Fundraising Events

۲

Team OREF Raises \$14,250 for Research and Education continued from page 1

to join him in forming Team OREF in the corporate coed division of the Chicago Triathlon. In this division, teams are composed of one cyclist, one runner, and one swimmer. **Patricia Hsu, M.D.**, orthopaedic surgery resident, and **Brian Magovern, M.D.**, instructor and AAOS candidate member, signed on with the intention of taking first place.

Volume XI

"Orthopaedic surgeons have a definite competitive streak," said Dr. Ghanayem. "We chose the 2007 Chicago Triathlon because it represented an event to rally around. Also, because each segment of the competition conforms to Olympic rules a 1.5-kilometer swim for Brian, a 10K run for Patti, and a 40K bike ride for me — we felt it would be a good challenge for us athletically on top of our primary goal of providing a better example for patients."

Keeping to a common training schedule was ruled out as impractical, but some preparation was necessary. "I have done a lot of cycling in the past year, but this was my first triathlon," said Dr. Ghanayem. "I checked in with the staff at Spokes, a bicycle shop in Wheaton, to work out my pacing and hydration. They do a lot of customizing of bikes for orthopaedic patients and also sponsor weekly fitness rides."



(left to right) Dr. Brian Magovern, Dr. Patricia Hsu, and Dr. Alex Ghanayem formed Team OREF to compete in the 2007 Chicago Triathlon

Adding Philanthropy to the Contest

As an added incentive, Team OREF decided to use the competition as a way to put more muscle behind orthopaedic research and education.

DePuy Spine encouraged a winning performance with a \$10,000 charitable contribution to OREF. "Two things we vehemently support are surgeon education and research and development. That's what OREF stands for. The opportunity to encourage Team OREF's efforts, to spotlight the role of orthopaedic surgeons in inspiring patients while supporting OREF's ongoing research and education fit squarely with our corporate objectives," said **Ms. Debbie Williams**, director of communications, DePuy Spine.

Other sponsors gave \$4,250 in cash gifts to OREF as an additional incentive for Team OREF. The combined total of \$14,250 has been donated to OREF's 2007 Annual Campaign.

Bonus Outcome: Inspiring Colleagues

Drs. Ghanayem, Hsu, and Magovern came home with new stories and new resolve for encouraging patient fitness. The team's example has caught on with colleagues as well, and is paying further dividends. Four orthopaedic residents at Loyola have adopted an exercise program and are losing weight and gaining strength and stamina, inspired by Team OREF's example. Still, Dr. Ghanayem hopes Team OREF's 2007 success is the beginning of something much bigger.

"In time, I'd like to see 15 or 20 teams at orthopaedic residencies across the country. Team OREF/Loyola...Team OREF/Wisconsin... Team OREF/Johns Hopkins...and so on. Think of all that a little friendly competition could do for our patients, our own health — and for OREF's Annual Campaign. With just a little effort, we could be funding \$150,000 or more in new research each year."

Ready to Get on Board?

If your residency program would like to pick up Dr. Ghanayem's gauntlet, or your practice group would like to organize a parallel set of teams, please contact **Ed Hoover**, vice president, development at **hoover@oref.org** or (847) 384-4354.



Alexander J. Ghanayem, M.D. rode the 40K segment of the 2007 Chicago Triathlon for Team OREF.

More Athletes Lend Energy to OREF's Annual Campaign

TEEING UP FOR RESEARCH...

OREF received 71 Annual Campaign gifts totaling \$10,900 from participants in the American Orthopaedic Society for Sports Medicine (AOSSM) annual golf tournament held this year in Calgary, in conjunction with the AOSSM Annual Meeting. These gifts were supported through a charitable contribution from DJO, LLC., a Goldlevel OREF Corporate Associate and an AOSSM corporate supporter at the Partner level.

"Our solutions for patients and orthopaedic sports medicine professionals are entirely dependent on ongoing research and education. We're pleased to partner with OREF and AOSSM to fuel more advances in patient care," said **Michael McBrayer**, senior vice president of marketing, DJO, LLC. (\bullet)

Corporate Associates Program

۲

November/December 2007

2007 Corporate Associates

OREF is proud to acknowledge these companies for their generous support. A strong and productive alliance with industry enables OREF to fund quality programs that advance the orthopaedic profession, ultimately leading to improved patient care.

Platinum Level (\$200,000 & above)

		DePuySpine KYPHE	
	Ausculoskeletal ransplant oundation FT LEADER ⁻	HOIFIX [®] Pfizer	% smith&nephew
stry	кег° <i>® зүмтн</i>	ES [®] SYNTHES Spine	RIGHT.
Gold Leve (\$100,00	el 0 - \$199,999) JB	Silver Level (\$50,000 - \$99,99	Globus Medical Sanofi Aventis
Bronze Level (\$10,000 - \$49,999)	Arthrex Bayer BioMimetic Therapeutics Champion Exposition Services	Current Concepts in Joint Replacement (CCJR) Exactech Ferring Pharmaceuticals Genzyme Biosurgery	Merck Human Health Pfizer Medical Humanities Initiative Symmetry Medical Tornier
Copper Level (\$1,000 - \$9,999)	Aesculap Allez Spine Aptic Superbones ArthroCare Corporation Doncasters Medical Technologies Encore Medical ESKA America	Hapad Hayes Medical Innomed, Inc Innovation Sports, Inc Kinamed Maine Orthopaedic Review Course ONI Medical Systems Inc.	OrthopaedicList.com Orthopedic Network News Pacific Research Labs/Sawbones PAK Manufacturing Precimed TissueLink Zimmer Thomson Associates

To learn more about the Corporate Associates Program, please contact:

 Judy Sherr
 Ivy Gard

 VP, Corporate Relations
 Corporate Relations

 (847) 384-4356
 (847) 384-4355

 sherr@oref.org
 gard@oref.org

()

Corporate Associates Program

۲

More Than Medicine: Pfizer Partners With OREF to Learn About I

fizer, a longtime Platinum-level OREF Corporate Associate, depends on its partnerships with medical specialty foundations such as OREF. The company's philosophy is that through such partnerships, better patient care is achieved.

Not Just a Matter of Drugs

Volume XI

With a loan from his father, **Charles Pfizer** and fellow entrepreneur **Charles Erhart** founded Pfizer Inc. in 1849. Doctors used Pfizer's first product, a form of santonin, to treat patients suffering the effects of parasitic worms. Today, Pfizer produces drugs for 11 therapeutic areas and is considered the world's largest research-based biochemical and pharmaceutical company, with major research development locations throughout the United States and England.

"We are a research-based pharmaceutical company," said **Joseph M. Feczko, M.D.**,

chief medical officer of Pfizer Inc. "We spend about \$7 billion a year on various aspects of research and development."

Pfizer conducts this research to create and learn about its new products. Partnering with foundations and



Joseph M. Feczko, M.D. Chief Medical Officer, Pfizer Inc.

research groups like OREF helps Pfizer determine which areas of medicine need attention.

"While we have expertise in studying how compounds behave, we don't research the fundamental aspects of a condition. When we're looking at patients' reactions to post-surgical pain, for instance, it has to be through groups such as OREF, which is looking at various aspects of patient care as they relate to the postoperative condition or to orthopaedic conditions in general." OREF-funded research provides Pfizer with a better understanding of the orthopaedic field, according to Dr. Feczko, which helps the company determine what new therapeutic interventions are needed.

"We want to make sure our research fundamentally improves patient care," Dr. Feczko explained. "We already know that patients need better medicine to reduce their pain, but now we're also working in areas such as bone healing to see if we can increase the speed and strength of healing in severe fractures. We're also trying to improve bone mass for osteoporosis, and we'd like to achieve better clinical outcomes."

OREF-Pfizer Partnership Projects

Pfizer's quest to approach medicine holistically by investigating orthopaedists' and patients' needs led to several educational projects with OREF. Through the Corporate Relations Advisory Group (CRAG), a program established by OREF and the American Academy of Orthopaedic Surgeons (AAOS) to support educational programs, Pfizer provided an educational grant to develop the pain management section of AAOS' Orthopaedic Knowledge Online (OKO). The OKO Web site includes information on clinical topics and continuing medical education, and also features orthopaedic reviews and an online bookstore. The Web Marketing Association recently honored OKO with three

recently honored OKO with thre Standard of Excellence Awards for medical, educational, and publishing excellence.

"We have a strong interest in pain management and OREF had a strong interest and mission to fund more applied research, which led to Pfizer's collaboration with OREF and the CRAG program to support the creation of Orthopaedic Knowledge Online," Dr. Feczko said. Pfizer extended its support for orthopaedic surgeons in 2005 when it supplied funding for a fellowship award in pain management. Designed to advance the training of new orthopaedic surgeons scientifically or clinically interested in enhancing their pain management knowledge, the fellowship provided the recipient with support for travel, or other resources necessary for training or pursuing investigation on the topic of pain management. **Tony S. Wanich, M.D.** received the fellowship for investigating a new pain therapy for total knee replacement.

Pfizer also provided the educational grant that made the Pain Management Initiative possible. Based on collaboration between OREF and the American Orthopaedic Association (AOA), the initiative surveyed orthopaedic surgeons to learn which pain management therapies, technologies, and techniques they administered to patients after total joint replacement, sports medicine, and spine-related surgery. A highlights report of this study was mailed with this issue of Impact, and reports are available upon request at communications@oref.org. A complete results report is being reviewed for publication. For more information and updates on publication of the full report, please visit www.oref.org or www.aoassn.org.



Partnering with foundations and research groups like OREF helps Pfizer determine which areas of medicine need attention.

10 www.oref.org

()



۲

November/December 2007

t Patients' Needs



Pfizer produces drugs for 11 therapeutic areas, with major research and development locations throughout the United States and England.

"We're always looking to take on board important teachings from our collaborators," indicated Dr. Feczko. "We'd like to learn from the orthopaedic community the fundamental aspects of research in the orthopaedic area and how we may be able to leverage that research to bring newer medicines to patients more quickly."

Essential Needs

In Dr. Feczko's opinion, it is essential that drug companies take a holistic approach to medicine and collaborate with groups such as OREF to gain a broader idea of what is needed.

"If OREF didn't exist, someone would have to create it to help with some of the coordination of research in orthopaedics," Dr. Feczko explained. "It's critical that we partner with those who are researching the causes of disease and taking medicine from the laboratory bench to the bedside to improve patient care. Groups like OREF are important for getting the big picture or learning about what the cutting edge of research is in a specific field. That's not something that an individual at an academic medical center will do. With OREF, there are opportunities to broaden knowledge across the therapeutic arena. OREF has become a resource for Pfizer to better understand orthopaedics."

By learning about the needs of orthopaedic surgeons and patients, Pfizer can enhance its research and development, Dr. Feczko said, and he believes there is an opportunity to do even more. He would like to have a joint council between clinician scientists and industry to discuss the key areas warranting research.

"A broad exchange of ideas between several device makers and pharmaceutical companies to identify research projects that need to be tackled and patient needs that aren't yet being addressed could direct future research and discovery that translates into improved patient care," he said.

Aging Painlessly

Pfizer's tradition of collaboration reaches beyond creating new pharmaceuticals, Dr. Feczko said.

"We're working with patient groups and physicians in a much more holistic way. While our expertise is in discovering and developing novel medicines, we also have pretty good insight into health care needs."

In addition to medical researchers, Pfizer has pulled together investigators with social science and education backgrounds to study health literacy and learn how patients understand therapy instructions when they're also dealing with the stress of a new diagnosis.

According to Dr. Feczko, "There's a need to help physicians and patients interact better so that the ultimate outcome is improved patient care."

How does this additional research fit in Pfizer's partnership with OREF? Dr. Feczko said that with the aging population eager to stay active, new products will be essential to help people remain healthy and productive. Another essential: better communication with orthopaedists to learn what types of medicines patients need.

"Orthopaedic surgery and innovations are having a big impact on people's quality of life. Because of the desire to age more healthily — whether it's innovations in joint replacement or cutting-edge research on strengthening bone or muscle mass there are great opportunities for innovation. As we develop compounds for improved bone healing and continue developing medicines for pain relief, we need to collaborate with the people who are actually seeing patients — with the people who are actually using these medicines. It's critical that we stay close to organizations like OREF."

OREF Resident Programs

۲

Finding Answers in Good Time

continued from page 1

At the New England Resident Research Symposium, **Peter G. Passias, M.D.** won first place, and **Lawrence Gulotta, M.D.** won first place at the New York Resident Research Symposium.

Time Crunch

Volume XI

One of the many challenges the residents faced in their dual roles of clinician and scientist was simply finding time to conduct research. Second place winner of the New York Symposium, **Samuel Kang-Wook Cho, M.D.,** explained, "You literally have to squeeze out some time to do research because you cannot neglect your clinical duties. In fact, you want to excel at patient care. I run up to the lab between cases, spend my evenings thinking or searching through PubMed, and come to the lab on weekends to conduct experiments."

"There're just so many hours in a day so it's hard to be both clinician and researcher," agreed Dr. Gulotta, who took a year off from clinical practice so that he could focus on research. "The clinical aspects of residency are so demanding that it's hard to do anything else. Research becomes like a hobby."

Dr. Passias saw similar experiences in his residency. He believes that the research aspect of residency is so important, however, that residency programs should ensure time for it.

"The residency program itself needs to realize that residents are working very hard but they have minimal time for basic daily life activities, let alone extra activities regarding research," Dr. Passias said. "Research is such an inherent part of orthopaedic surgery and medicine in general that residents should be involved — even if they don't become long-term researchers. Residents need to understand how to interpret the current body of literature and ongoing studies that are affecting what they do."

Would it be possible for residency programs to block off time so that residents could conduct research as part of their training? Dr. Passias said it doesn't matter how it's done, as long as there is an expectation for residents to make some progress with research.

Explained Dr. Passias, "Residents are going to be making decisions in five years. If they're not trained right currently, we're going to suffer for it down the road."

According to Dr. Irwin, a good support staff is needed to make it easier for residents to conduct research.

"As a resident you tend to get bogged down with some of the bureaucracy," he said. "It can feel like everyone's making it really hard for you to actually get your research done. Having a research staff to help you obtain Institutional Review Board approval and advise you on next steps makes it a lot easier."

Held annually in Boston, Chicago, and New York, the OREF Resident Research Symposia give residents the chance to present their research projects to their peers and receive critiques from established investigators.

2007 OREF Resident Research Symposia

Midwest — Chicago Loyola University Medical Center Stritch School of Medicine Host: **Terry R. Light, M.D.**

New England — *Boston* Massachusetts General Hospital Harvard Medical School Host: **Joseph C. McCarthy, M.D.** Co-host: **Harry E. Rubash, M.D.**

New York — New York City Columbia University Host: **Louis U. Bigliani, M.D.** Co-host: **Theodore Blaine, M.D.**

All 2007 Symposia were supported by an educational grant from Synthes and Synthes Spine.

()

A Resident's Hobby?

With so little spare time, why do residents opt to participate in research projects? Some say it's to satisfy their curiosity, but the appeal is actually deeper and broader.

"I began research purely out of intellectual curiosity," explained Dr. Cho. "The potential for direct application of your findings in a clinical setting made research all the more interesting and fun."

Advancing the field of orthopaedics is a common theme among resident clinician scientists. According to Dr. Schock, "Research is really an important part of the educational process. I had an opportunity to do a good project and I thought that we could get some useful information from it."

Research also provides a degree of insight to future orthopaedic treatments. "Having an understanding of the anatomy and the physiology of the conditions that we treat will be really important," Dr. Gulotta predicted. "Various biologic therapies are going to play increasingly important roles in orthopaedics, and we need to be aware that a biologic revolution is going to happen. If we don't understand it, we'll be left behind and our patients will suffer."

Symposia Soundboard

One of the main benefits of OREF Resident Research Symposia is learning about research conducted by others.

"It's nice to hear what some of the other residents in the area are doing and how their projects were perceived," said Dr. Schock. "It's a good place to share ideas, and it encourages me personally to continue with research. I hope that by studying the questions, I'll be able to answer them."

Hearing about others' research projects can spark interest in different topics as residents decide what subspecialties they'd like to pursue. Although Dr. Irwin's research was a pediatric-based study, he has since decided to subspecialize as a foot and ankle orthopaedist. (\blacklozenge)

OREF Resident Programs

November/December 2007

"I think it's common for residents to start projects and then realize what field they're going into," explained Dr. Irwin, who now has a foot and ankle fellowship. "In fact, I was interested to hear about a couple foot and ankle projects that were presented at that symposium."

The Symposia give residents a chance to practice presenting their work in front of an audience of their peers as well as established reviewers. Residents say it's rare that they find the time to discuss medical issues outside their clinical cases, but the Symposia provide them a forum in which they can listen to their colleagues and reflect on and freely discuss current trends in orthopaedics.

"Personally, I was very impressed by the social experience," said Dr. Passias. "We don't have many social gatherings as residents. It was good to discuss controversial topics after hearing the research and it was definitely one of those days that I look back on and say 'that was one of the best days of my residency.""

For more information about resident grants and programs at OREF, please visit **www.oref.org/residents.** Free resident opportunities posters are available by request at **communications@oref.org.**

"Research is really an important part of the educational process. I had an opportunity to do a good project and I thought that we could get some useful information from it." —Harold J. Schock III, M.D.

How They Won — First Place 2007 OREF Resident Research Symposia Projects

Symposia winners envision how their research might impact orthopaedic practice in the future.

Todd A. Irwin, M.D.

William Beaumont Hospital, Royal Oak, Mich.

Midwest Symposium First Place Basic science category

Stapling is used to treat angular deformities or length deformities of pediatric bone, but used long-term, this treatment could lead to other problems.

Dr. Irwin's research team inserted a staple that spanned the growth plate on the lateral aspect of the distal femur in rabbits. After three weeks, they cut the staple to remove the compressive effects.

"We allowed some of them to grow for three days, some for seven days, some for 16 days, and some for 21 days. At each time period, we examined sections on the femur and performed immunohistochemical, in situ hybridization, and histochemical studies, describing what was happening in the growth plate while it was recovering. We also looked at specific enzymes and growth factors, such as Type II collagen, Type X collagen, and Indian hedgehog."

The team found that the growth plate had an extensive ability to recover following a period of stapling. They also learned that initially the hypertrophic and proliferative regions of the growth plate were widened, but after 21 days returned to normal, as did growth factors such as Indian hedgehog and MT1.

Although this was promising, they did find that a fracture line appeared within the growth plate in the controls that were stapled for 21 days and not allowed a recovery period. Dr. Irwin hypothesized that the fracture may have caused some of the histological changes they observed when the growth plates were allowed to recover.

"Since a fracture line appears after a period of stapling, when the growth plate undergoes these changes it might be somewhat

()

vulnerable. Clinically, surgeons should probably protect the leg for a while after they remove the staple, which is commonly done anyhow."

Although he believes it will take many years, Dr. Irwin said this information could be coupled with genetic research to create synthetic compounds that could feasibly be injected to affect angular growth and/or length in terms of helping the growth plate recover from injury or positively affecting the growth plate.

Harold J. Schock III, M.D. Loyola University, Chicago

Midwest Symposium First Place Clinical research category

Usually physicians diagnose supinationexternal rotation ankle fracture subtypes by manually placing stress upon them. Dr. Shock investigated diagnosing the problem by placing the ankle in such a position that gravity exerted the force necessary for diagnosis.

"By using gravity, diagnosis doesn't require having an examiner present, meaning less manpower is needed and less radiation exposure for examiners," Dr. Schock explained. "The topic of digital radiographs is pertinent to anybody who covers an emergency room, and the more that we're using digital radiographs the more useful examinations that don't require an examiner become.

Dr. Schock's research aimed to validate that this procedure, which had already been described in a cadaver model, was as good as the traditional method of diagnosis.

"The specific aim for my research was to prove that that method of taking the radiograph was as good as the gold standard," said Dr. Schock. "And it actually turned out to be as good and even more comfortable for the patient."

continued on page 14

Volume XI

OREF Resident Programs

۲

Finding Answers in Good Time

continued from page 13



Peter G. Passias, M.D. Tufts University, Boston **New England Symposium First Place**

Traditionally, orthopaedists treat patients who suffer from degenerative lumbar spinal conditions that cause instability or incapacitating pain with fusion. But, as outcomes studies show, the results range only from okay to good.

"Many of the patients who have these procedures will not get better," Dr. Passias said. "In the past five to 10 years there's been an effort to try other methods of treatment for degenerative conditions of the lumbar spine, and most of these methods attempt to reproduce the normal motions of the spine prior to the disease state."

The problem is, according to Dr. Passias, not much is known about the normal motion of the spine, which is why he decided to research natural motion using a technique that combines fluoroscopic and Magnetic Resonance Imaging (MRI) images.

"The MRI images are used to study the anatomy; to reconstruct a three-dimensional model in a software program. Those models are matched to the images that came from the fluoroscopic images in software similar to Computer Aided Design (CAD). The benefit of using an MRI is that it allows us to evaluate the soft tissue components — the intervertebral discs, the cartilage, the facet joints, and the ligaments, and so on."

Wanting to learn how well this technique worked, Dr. Passias began examining lamb vertebrae with fluoroscopy and Computerized Tomography (CT) scans.

"I presented the initial validation study of ovine, or lamb, lumbar spine specimens at the OREF Symposium and the results of that work were phenomenal, both in terms of accuracy and repeatability compared to other techniques."

The validation study results showed no significant difference between studying spinal motion in MRI or CT imaging, meaning the MRI scans could be used to incorporate information about soft tissue movement. Now that the imaging technique has been validated, Dr. Passias has moved on to imaging human subjects who have no degenerative spinal conditions to learn how the spine moves in a natural setting. The next step will be to evaluate patients with degenerative spinal conditions.

"After imaging it's a long process for us in the laboratory to digitize those images, to reconstruct the three-dimensional model, to transport that model into a software program — CAD software — where the fluoro set up is re-created. Basically it looks like exactly what's occurring, but it's on the computer."

Once Dr. Passias knows how the spine moves in normal and degenerative settings, he'll be able to evaluate newer spinal treatment techniques, such as disc arthroplasty or total facet joint arthroplasty and other treatment methods that reproduce normal spine motion. Dr. Passias hopes to learn which methods hold the most promise for treating degenerative spinal conditions.

Lawrence Gulotta, M.D.

Hospital for Special Surgery, New York

New York Symposium First Place

While young patients who've injured their cartilage have treatment options, orthopaedists are not certain of those options' long-term effects.

"A cartilage injury is a bad problem to have because cartilage doesn't have any capacity to heal itself," said Dr. Gulotta. "There are a (Left to right) First and second place winners of the 2007 OREF Resident Research Symposia: Harold J. Schock III, M.D., Todd A. Irwin, M.D., Peter G. Passias, M.D., Lawrence Gulotta, M.D., and Samuel Kang-Wook Cho, M.D.

handful of surgeries that we can try, but all of them have their drawbacks. One of the more popular surgeries is called osteochondral autologous transplantation surgery, or OATS."

When performing OATS on a patient, a surgeon takes normal, healthy cartilage from a non-weight-bearing portion and places it into the defect that is on a weight-bearing surface and causing pain. While patients do well with this type of surgery, not much is known about how well the transplanted grafts hold.

"There's been a lot of research in the trauma literature that shows impacting cartilage kills chondrocytes, but so far researchers haven't investigated if the same thing happens when you tamp these grafts in place. Tamping the grafts is an impact load just like trauma is."

To learn whether or not tamping grafts into place causes cartilage damage, Dr. Gulotta tested the procedure in rabbits and found that after only about four days, not only had half of the chondrocytes died, but the cartilage matrix degraded.

"The impact not only kills the chondrocytes, but it also sets into motion the release of enzymes that degrade the extracellular matrix that makes up the cartilage. It highlights the need for us to either find a way to implant the grafts without trauma, or a way to avoid using grafts altogether by putting in a synthetic plug that turns into cartilage in the future."

Dr. Gulotta hopes that this research will serve as the groundwork to develop less traumatic techniques of graft insertion, as well as create therapeutics that block cell death or block the degradation response of the cartilage to the load placed upon it.

For now though, Dr. Gulotta said, "Surgeons performing OATS procedures should keep this study in mind and use caution when hitting the graft into place."

14 www.oref.org

Thank You for Supporting OREF

۲

THANK YOU for Supporting OREF's 2007 Annual Campaign

State

The **most cost-effective way** for OREF to process your donation is through our secure online donation form at **www.oref.org/donate**. If you prefer, please complete this form and return it in the postage-paid envelope provided.

Personal Data

Please print clearly and show your name as you wish to be recognized in the OREF Annual Report.

Name	
Institution/Practice	

Preferred address 🗅 Home 🗅 Business

Address

City

Zip

Fax

E-mail

Your Gift for 2007 All gifts will be gratefully acknowledged. Gifts of \$1,000 or more earn Order of Merit recognition.

Phone

Order of Merit	🗅 Platinum	\$5,000+
	🛛 Gold	\$2,500+
	Silver	\$1,000+
	Please sen	d an Order of Merit Certificate.

I want to support orthopaedic research and education in Project Year 2008 with a gift of \$ _____ by December 31, 2007.

□ Paid in full by enclosed check

D Pledged in full; please send a payment reminder in the month of

□ Paid by credit card: □ AMEX □ MasterCard □ Visa

Print Account Holder Name as it appears on credit card

```
Account Number
```

 Security Code: 3 digits, upper right on back of card*
 Expiration Date MM/YY

 *AMEX: 4 digits, upper right on face of card
 Expiration Date MM/YY

State

Zip

AMEX ONLY: Billing Address

City



Memorials and Tributes

My contribution is given (check one): \Box In Memory of \Box In	i ribute to
Name of Honoree	

Please send an acknowledgment of this gift to:

Name

Address

City

Zip

Order of Merit Recognition and Designations For all gifts of \$1,000 or more.

Your gift of \$1,000 or more earns Order of Merit recognition, including an Order of Merit badge ribbon for the AAOS Annual Meeting and designation privileges:

State

the first \$500 or more to support OREF-funded research and education
the balance to your choice of OREF orthopaedic partner(s)

I wish to direct my gift as follows:

\$ OREF	\$_	 _ASRM	\$ _NASS
\$ AAOS	\$_	 ASSH/AFSH	\$ _OLC
\$ AACPDM	\$_	 _COS	\$ _00
\$ AAHKS	\$_	 _CSRS	\$ _ORA
\$ AAHS	\$_	 _EOEF	\$ _ORS
\$ AANA	\$_	 _HS	\$ _OTA
\$ ABJS	\$_	 _ISAKOS	\$ _POSNA
\$ AOA	\$_	 JRGS	\$ _RJOS
\$ AOFAS	\$_	 _KS	\$ _sicot
\$ AOFAS/OEF	\$_	 _LLRS	\$ _SOA
\$ AOSSM	\$_	 _MagSoc	\$ _SOMOS
\$ ASES	\$_	 _MAOA	\$ _SRS
\$ ASIA	\$_	 _MSTS	\$ _WOA
			\$ _Total Gift

For details about Shands Circle membership or about <u>contributing</u> to endowment funds, please contact:

 Gene Wurth
 Ed Hoover

 (847) 384-4362
 (847) 384-4354

 wurth@oref.org
 hoover@oref.org

For more information about the Annual Campaign, please contact:

Ed Hoover or Katie Carter (847) 384-4352 carter@oref.org

@2007 Orthopaedic Research and Education Foundation Printed in USA. 0711-14

www.oref.org/giftplanningguide

15

Orthopaedic Research & Education Foundation

Senior Staff

Gene R. Wurth President and CEO

Jean McGuire CFO and Vice President, Grants

Judy Sherr Vice President, Corporate Relations

Ed Hoover Vice President, Development

Sharon Johnson Vice President, Communications



6300 N. River Road – Suite 700 Rosemont, IL 60018 (847) 698-9980 ۲

Non-Profit Organization U.S. Postage PAID OREF

New Resident Grant Available through OREF/AAHKS

OREF and AAHKS are pleased to invite applications for the OREF/AAHKS/Zimmer Resident Clinician Scientist Training Grant in Total Joint Arthroplasty.



Zimmer will provide an educational grant to fund this Resident Clinician Scientist Training Grant, which will be awarded through collaboration between AAHKS and OREF.

This **\$21,500, one-year grant** provides \$20,000 for research expenses (but not salary) plus a \$1,500 travel stipend. Qualified applicants include residents (or fellows completing an orthopaedic fellowship) in approved orthopaedic programs who:

- Want to prepare for a career with research in Total Joint Arthroplasty as a major component.
- Have a mentor who is an Active or Candidate member of AAHKS.
- Can dedicate at least three to six months to research time (six months is the preferred minimum) between April 1, 2008 and March 31, 2009.

Applications must be received by OREF **no later than January 15, 2008.** The recipient will be required to attend the 2008 AAHKS Annual Meeting and present an interim report on his or her project; the travel stipend compensates time and expenses.

orthopaedic

To fill out an application please visit www.oref.org/OAZresidentgrant. Please direct any questions to:

Mary Marino, Grants Administrator (847) 384-4359 marino@oref.org

Carmen Metoyer, Grants Administrator (847) 384-4351 metoyer@oref.org

۲

e future

of