



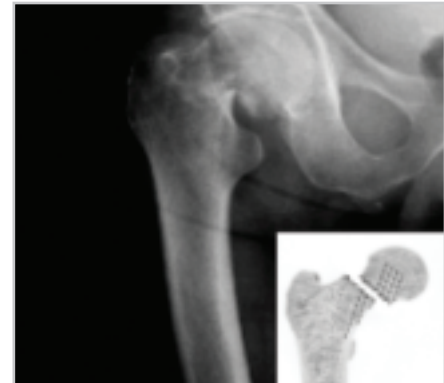
When a Hemi is Only Semi-right

OREF-funded study explores whether total or hemiarthroplasty is best for displaced femoral neck fractures

With more than 300,000 hip fractures occurring in the United States each year — and that average expected to double by 2023 — the National Institutes of Health have expressed the need to optimize treatment. **William B. Macaulay, M.D.** hopes his OREF/American Association of Hip and Knee Surgeons (AAHKS)-funded study of displaced femoral neck fracture treatments will do just that.

“Historically, displaced femoral neck fractures have meant treatment with hemiarthroplasty, without a lot of thought being given to patients’ clinical and social situations and life expectancy, but if you look at the world literature over the past

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More than 300,000 hip fractures occur in the United States each year, and that average is expected to double by 2023. The National Institutes of Health have expressed the need to optimize treatment.



(l-r) Micah Sinclair, M.D., Alexander J. Ghanayem, M.D., and John Santaniello, M.D., F.A.C.S. competed as Team OREF/Loyola in the corporate co-ed division of the 2008 Chicago Triathlon, taking the bronze medal.

Searching for Rivals

Team OREF/Loyola invites peer competition to support patient health, research, and education

After swimming, cycling, and running to a first place finish in the corporate co-ed division of the 2007 Chicago Triathlon, Team OREF/Loyola was ready for a little competition from Chicago area orthopaedists in 2008. They found, however, that patients were their only formidable opponents.

Alexander J. Ghanayem, M.D., professor, Department of Orthopaedic Surgery and Rehabilitation and director, Division of Spine Surgery at Loyola University, Chicago — the only remaining member of the

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discovering the future of orthopaedics



William P. Cooney III, M.D.
Board Chair

Funding Needs Up, Resources Down

Gifts from orthopaedic surgeons around the country make a significant contribution to the pool of resources that OREF draws on to fund research and education — about 120 grants and awards in a typical year. But, so far, 2008 is far from typical.

- OREF has received 39% more research applications this year than last.
- Research funding requests are up 44%, from \$9.8 million to \$14.1 million.
- Proposed educational programs, including those for the AAOS, push total funding requests to \$15.1 million.

And yet, year-to-date 2008 contributions, which typically surge at the end of the year, are less than anticipated and forecast to fall short of our year-end needs. We need your individual support and the support of group practices in orthopaedic surgery. It is time to give recognition to the countless research and educational grants that have made our lives as orthopaedic surgeons successful.

Bottom line: We need your support. Without an infusion of Order of Merit gifts (\$1,000 or more

by Dec. 31) we are left with the very real possibility that OREF may have to go from funding more than 100 projects to funding a mere handful.

Can you help?

Please join me in making a particularly generous gift to the 2008 Annual Campaign — including a minimum of \$1,000 unrestricted to OREF. If you have already contributed to the 2008 Annual Campaign, I thank you and encourage you to consider an additional gift this year: a Shands Circle Endowment gift or other contribution directed to OREF. Remember, Order of Merit giving **begins** at \$1,000 per year, a modest entry point in recognition of all that orthopaedic education and research have done to foster your career.

We are deeply grateful for any additional support you can offer in this sobering environment.

Sincerely yours,

William P. Cooney III, M.D.
OREF Board Chair

Gifts from orthopaedic departments and faculty represent a significant portion of the contributions that fund research and education yearly — thank you!

“Since 1955, OREF has awarded nearly \$88 million in grants and awards in all areas of orthopaedics, and most of these awards have been made to academic institutions across the country to fund high-quality research. The continued support of our academic departments is critical in advancing orthopaedic clinical, translational, and basic science research.”

— **Jo A. Hannafin, M.D., Ph.D.**, Vice Chair, Development



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Annual Giving Benefits All of Orthopaedics

Many thanks for all you do to encourage orthopaedic advances and for your continued support for OREF

OREF is proud to support the excellent work of the best and brightest minds in orthopaedics, and the benefits that accrue to you and your patients two ways, from funds raised by OREF for OREF-directed projects and from funds raised by OREF for partner-directed projects.

For example, through 2007:

- OREF has provided grants worth \$6.4 million to fund research and education related to spine care, and has raised another \$3.2 million for orthopaedic partners devoted to spine care;¹
- OREF has provided more than \$14.3 million to fund research in the area of hip and knee, and raised another \$1.8 million for orthopaedic partners specializing in hip and knee care;² and
- For trauma, OREF has funded \$9.9 million and raised another \$2.6 million for orthopaedic partners.³

Contributions made to the OREF Annual Campaign in 2008 will help support research and educational grant applications in 2009.

If you have already made your Annual Campaign contribution for 2008, we thank you. Otherwise, please take this opportunity

to make your 2008 contribution at www.oref.org/donate or by completing the form on page 15 and returning it in the envelope provided.

These separate allocations to our various orthopaedic partners are examples of what we call "The Multiplier Effect," funds given to OREF as unrestricted gifts, which OREF uses to support research in areas of specific interest to members of subspecialty societies. By combining many such unrestricted gifts, and by adding in endowment income, in past years, OREF has been able to fund grants at levels much higher than the amount of donations made by members of any one specific society.

At a time when orthopaedic research investigators and clinical educators are less and less able to secure the funding they need, your support will help us continue this fine work.

Thank you for your consideration.



Gene R. Wurth
President and CEO



Gene R. Wurth
President and CEO

About Impact

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

¹ American Spinal Injury Association (ASIA)
Cervical Spine Research Society (CSRS)
North American Spine Society (NASS)
Scoliosis Research Society (SRS)

² American Association of Hip and Knee Surgeons (AAHKS)
Hip Society (HS)
Knee Society (KS)

³ Orthopaedic Trauma Association (OTA)
SICOT Foundation (SICOT)
Society of Military Orthopaedic Surgeons (SOMOS)

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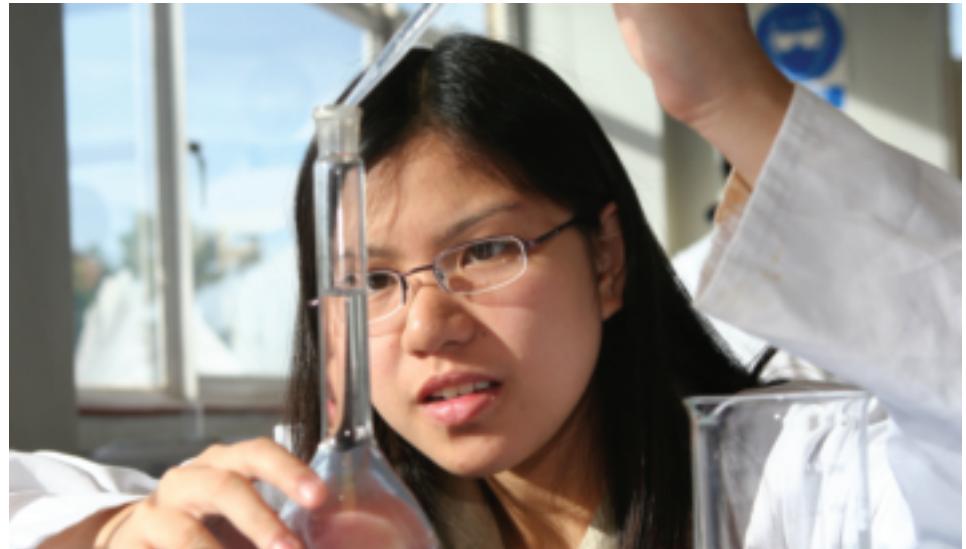
Funding the Best and the Brightest

For more than 50 years OREF has been supporting advancements in orthopaedics by funding educational and research initiatives conducted by individuals, institutions, and orthopaedic organizations representing the best and the brightest in orthopaedics. The process of awarding grants and awards is governed by scientific and academic standards put in place to help ensure that gifts given to OREF go to support some of the most promising projects and most gifted young researchers and educators in orthopaedics.

Expert reviewers evaluate and score applications

Each year OREF recruits dozens of expert reviewers to serve on its Peer Review and Selection Committees. In a typical year, about 75 reviewers volunteer their time and talent. OREF is fortunate to attract a who's who roster that includes top-echelon orthopaedic surgeons, department chairs, biochemists, statisticians, biomechanical

OREF is fortunate to attract a who's who roster that includes top-echelon orthopaedic surgeons, department chairs, biochemists, statisticians, biomechanical engineers, oncologists, and others with highly specialized skills and a commitment to fostering the best scientific inquiry and scholarship.



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Committee members evaluate and score applications according to well-established criteria, including scientific or academic merit, clinical relevance, and feasibility and promise of the methods proposed. Research applications are subject to a peer-review process that is based on National Institutes of Health protocol, which includes multiple reviewers and written critiques. Educational grant applications are evaluated by top orthopaedic educators, usually department chairs.

Funding is awarded or renewed annually

Recommendations from the Peer Review and Selection Committees are presented to the OREF Board of Trustees at OREF's Annual Meeting, held each February or March in conjunction with the American Academy of Orthopaedic Surgeons Annual Meeting. Funding is contingent on the amount of money OREF raises each year through

the Annual Campaign as well as endowment earnings, which are driven by the flow of major gifts and investment performance. A vote of the OREF Board decides which applications are funded. The decisions of the Board of Trustees are then communicated to the selected investigators.

In the case of research projects, the Peer Review Committee's job continues throughout the funding period. Committee members review progress reports at the 9-month mark and each year thereafter. Prior to the second year and each subsequent year of funding, multiple-year grants are again approved by the OREF Board based on the evaluation of the reviewers.

Profuse thanks to OREF's volunteer reviewers

OREF is deeply grateful for the tremendous commitment of its Peer Review Committee and Selection Committee members. Through their significant investment of time, knowledge, and energy, OREF has been able to improve the science and practice of orthopaedics, and quality of life for everyone for more than five decades. ■

Searching for Rivals

Team OREF/Loyola invites peer competition to support patient health, research, and education *continued from page 1*

2007 team — organized a new team to compete in the 2008 event on Aug. 24. He took the cycling leg, while **John Santaniello, M.D., F.A.C.S.**, associate professor, Surgery, Trauma, Surgical Care, and Burns, swam and **Micah Sinclair, M.D.**, an orthopaedic resident, ran for Team OREF/Loyola.

Setting an example for patients, raising \$4,100 for OREF

As in 2007, the team members wanted to practice what they preach and participate in physical activity to inspire patients to stay limber, maintain a good, healthy weight, and condition joints and muscles to avoid arthritis and other debilitating conditions. At the same time, Team OREF/Loyola hoped to raise money for OREF through their efforts — succeeding with \$4,100 in 2008 — and by sparking rivalry with orthopaedists at other Chicago-area institutions for a little healthy competition in the interest of funding orthopaedic research and education.

“After Team OREF/Loyola took first place in the Chicago Triathlon last year, I expected at least one challenge team from another local orthopaedic program,” Dr. Ghanayem said.

But there were to be no challenges from orthopaedic departments. Patients, however, stepped up. They not only competed, but finished ahead of Team OREF/Loyola, which took the bronze medal in the 2008 race.

Patients take the lead

When he started his job with Ronin Capital a year ago, **Mr. Gary Rulo** learned that, like himself, a couple of his colleagues were athletes. **Mr. Rafal Szukala**, in fact, had been

a silver medalist Olympic swimmer and **Ms. Erin Rhodehamel** had participated in many running events. With Mr. Rulo’s cycling experience, they decided to form a corporate co-ed team, and took second place in the 2008 Triathlon.

Mr. Rulo is no stranger to orthopaedics, having had an anterior cruciate ligament (ACL) repaired about 10 years ago after partially tearing it playing volleyball and suffering a complete tear while playing basketball. Mr. Rulo said his orthopedic surgeon encouraged him to remain active, but not to continue with sports, such as skiing, that would exacerbate his repaired ACL.

“I stick to cycling now,” Mr. Rulo said. “It’s easier on the knees.”

“I’m really surprised other orthopaedic resident programs in the Chicago area haven’t fielded a team to compete with us and set an example for their patients. They must not be up to it yet.

I guess the fact that a program covers professional athletes is no indication that the orthopaedic surgeons themselves are good athletes.”

— Alexander J. Ghanayem, M.D.

While Mr. Rulo has always been active himself — working out and cycling to lose weight and stay fit — he thinks it’s beneficial for doctors to set an example.

“I believe my doctor is an avid runner,” said Mr. Rulo, who has also been treated for a shoulder separation. “He’s very trim and I do think it’s easier for a patient to follow the advice of a doctor who tells him to stay fit if the doctor is fit himself.”

While this statement demonstrates that Team OREF/Loyola is on the right path to accomplish its goal of encouraging patients to engage in physical activity, Dr. Ghanayem still hopes to compete against other programs from across the country, or at least teams from the Chicago area; he’s throwing down the gauntlet for 2009.

Dr. Ghanayem’s challenge

“I’m really surprised other orthopaedic resident programs in the Chicago area haven’t fielded a team to compete with us and set an example for their patients. They must not be up to it yet,” Dr. Ghanayem said as he launched a pointed barb. “I guess the fact that a program covers professional athletes is no indication that the orthopaedic surgeons themselves are good athletes.”

If your residency program would like to meet Dr. Ghanayem’s challenge, your practice group would like to organize a parallel set of teams, or you would like to support Team OREF/Loyola, please contact **Ed Hoover**, vice president, development at hoover@oref.org or (847) 384-4354. ■



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

Mark Your Calendars for the 2009 Shands Circle Gala

With the end of 2008 quickly approaching, it's time to begin planning for the 2009 AAOS Annual Meeting in Las Vegas.

While the Annual Meeting gives us an opportunity to learn about developing advancements and innovations in orthopaedics, it also allows us to catch up with our peers and welcome the newest members to OREF's Alfred R. Shands Jr., M.D. Circle by attending the annual Shands Circle Gala, to be held in the Margaux Room of the Wynn Las Vegas.

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 more than 90% of those who responded agreed. For 2009, \$150 per person is the amount we request for the dinner and reception, and \$35 is the amount for the reception only.

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 reception and dinner
- Access to OREF's exclusive **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

Is Your Year-end To-do List Growing? Create a plan now to

There are a lot of reasons to wait until the end of the year to make charitable giving decisions. By then, you will likely have a broad overview of your tax situation. But more than that, this time of the year spurs generosity and goodwill.

If you're not prepared, the numerous opportunities to make a charitable gift can leave you feeling indecisive and stressed. You can alleviate much of the stress, however, by making your own plan that results in sound, comfortable decisions. Break down your plan into easy-to-do steps. Start by making these three decisions:

1. **How will you do the most good?**
2. **What amount will fulfill your desire to help?**
3. **Where will your support do the most good?**

The decisions are interrelated. Most people let the **where** and **how much** determine the **what**. But deciding first what form your donation will take

expands your list of options in ways that can increase your satisfaction.

How to do the most good?

Cash contributions are easy to give and can be taken as a deduction to reduce your federal income tax if you itemize and keep records. But other options can actually increase the value of your gift. Your financial professional can show you how to structure year-end gifts to get the most beneficial results. Here are some options to consider:

- **Securities you've owned for more than one year.** Securities that have increased in value can be transferred directly to OREF or another tax-qualified organization. You receive a tax deduction for the fair market value without paying tax on the capital gain. If an investment has lost value, you can sell it and claim the allowable loss on your taxes. Then, give the cash proceeds to OREF and claim a charitable deduction.

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,
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Registration details for the 15th annual Shands Circle Gala will follow in an invitation to arrive in early January 2009. Registration also is available online at www.oref.org/shandsgala. For more information about the 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 ask you to help us ensure that 2009 is successful for the Shands Circle. As of Nov. 1, 2008, more than 550 members made up the Shands Circle, including 21 who became part of Shands this year.

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

Photo courtesy of the Las Vegas News Bureau.

Save the Date

The 15th Annual OREF Shands Circle Gala will be held at the Wynn Las Vegas on Thursday, February 26, 2009.

Reception: 5:30 p.m. – 7 p.m.

Dinner: 7 p.m.



Aerial view of the Las Vegas Strip

relieve the stress of last-minute decisions

- **Life insurance.** You can name OREF as the owner and beneficiary of an existing or a new life insurance contract. Such gifts can provide you with tax benefits when structured properly.
- **Real estate.** Your personal residence, farm, vacation home, commercial property, or parcel of undeveloped land can be a tax-smart donation. In addition to receiving a charitable income tax deduction and possibly avoiding capital gains taxes, you free yourself of the hassle involved in selling the property.

What amount will fulfill your desire to help?

Deciding how much to give is a function of several variables, including your income, net worth, and commitment to the recipient organization's mission. A factor to keep in

mind is that tax deductibility makes the cost of donating less than the value of the gift.

It works like this: Suppose you are in the 25% federal income tax bracket and make a gift of \$100,000. The actual cost to you is only \$75,000. The \$25,000 difference is the incremental tax that you would have paid if no gift had been made. In this case, OREF receives 25% more — \$100,000 — while you spend 25% less.

Where will your support do the most good?

There are many ways to direct your generosity. Consider which of these options would suit you best:

- **To support OREF's ongoing work.** These gifts will be used for our current priorities

or for specific initiatives determined by our Board.

- **For our Endowment.** Your gift will ensure that we will have funds available to fund research and education far into the future.
- **For a named award or orthopaedic organization that you designate.** More and more donors are establishing named awards as part of their legacy or to honor a mentor or colleague. Through OREF's designated giving program, you can also direct a portion of your gift to support research and education funded by OREF or any of its more than 35 orthopaedic partner organizations.

Plan ahead

Carefully consider your options, but allow yourself enough time to make thoughtful choices. ■

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When a Hemi is Only Semi-right

OREF-funded study explores whether total or hemi-arthroplasty is best for displaced femoral

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10 years, total hip arthroplasty might be better," said Dr. Macaulay, director of the Center for Hip and Knee Replacement at Columbia University Medical Center, New York-Presbyterian Hospital, New York.

Different patients, different treatments

In total hip arthroplasty, both sides of the hip ball-and-socket joint are replaced. The acetabulum — the socket in which the femoral head articulates — is replaced by artificial components, usually metal and plastic. The femur is cut at the femoral neck, and the femoral head is removed. A stem is inserted into the femur, projecting a ball into the center of hip rotation. The ball fits into the new socket, and the mechanics of the hip are restored.

With hemi-arthroplasty, the patient's acetabulum remains untouched. The stem is inserted into the femur and a much larger metal ball articulates in the patient's original cartilage-covered socket. Recovery time for both treatment methods is about the same, but the long-term effects are not.

"The big metal balls used in hemi-arthroplasty are good in that they create a stable hip early, but for patients who are relatively 'young' (under 75 years of age, for example) and are going to be very active, walking with this big metal ball inside their own socket is likely to lead to 'prosthetic arthritis' and possibly conversion surgery in which the patient's hemi is converted to total hip arthroplasty," Dr. Macaulay explained. He believes that hemi-arthroplasty does work better for inactive patients — those dependent on others for care who won't be walking on the joint much and, therefore, are less likely to wear it out.

Getting a grant

Dr. Macaulay first learned of OREF when he took time off from clinical practice to conduct research during Post-Graduate Year (PGY)-2 of his residency when he was mentored by **Harry E. Rubash, M.D.**, now chief of orthopaedic surgery, Massachusetts

General Hospital, Boston. Several years later, **Louis U. Bigliani, M.D.**, chair of orthopaedic surgery at Columbia University and director of the Orthopaedic Surgery Service at Columbia University Medical Center, New York Presbyterian Hospital, encouraged him to apply for an OREF grant.

Attracting patients

Dr. Macaulay first applied for an OREF Career Development Award. When he was turned down, he decided to focus on the clinical aspects of total versus hemi-arthroplasty and received some funding from the AAHKS Research Committee, which partnered with OREF to distribute seed money for hip-and-knee-related research. Later, Dr. Macaulay successfully applied for an OREF Prospective Clinical Research Grant. Upon receiving the grant, Dr. Macaulay began recruiting patients to participate in a study that randomly selected total arthroplasty for one patient and hemi-arthroplasty for the next. It meant appealing to the desire to help future patients.

"To enroll, patients had to be able to trust in the flip of a coin and the only way we could convince them of that was to convince them that we really weren't sure which was the

best treatment in terms of getting better, of the need for further surgery, and the potential risks. This was an honest representation of the co-investigators' feelings about the choice of treatment."

Basing the type of surgery purely on chance made for a true randomized study. Dr. Macaulay believes, however, that it was because of this uncertainty that the enrollment rate was only about 30%. Although it took some time, Dr. Macaulay's team of co-investigators (the DFACTO Consortium)* was able to enroll enough patients to evaluate and compare the outcomes of the two procedures.

To participate, patients suffering displaced femoral neck fractures had to be able to live independently and take care of themselves, and perform everyday tasks such as grocery shopping. They were also required to pass a mini mental health exam to be sure they would likely be able to complete follow-up questionnaires. To enroll enough patients, five hospitals participated, with three providing the most significant numbers.

Enlisting other institutions

"Columbia provided a lot of data of course, because I was bugging all my partners to give us patients. The other two main institutions were **Lahey Clinic** in Burlington, Mass. where **Dr. Richard Iorio** was primary investigator and **University of Nebraska Medical Center** in Omaha, Neb. where the study was led by **Dr. Kevin Garvin**," Dr. Macaulay said.

OREF funding provided Dr. Macaulay with modest funds to entice other institutions to participate, but, he points out, they probably would have done it without compensation.

"They really did it out of the goodness of their hearts and the fact that they have their own degree of scientific curiosity about answering these questions appropriately," he said.

Get up and go

Dr. Macaulay's team at Columbia sent questionnaires to these other institutions. Participating patients were instructed to complete the validated questionnaires,



**Patients were recruited to participate in a study that randomly selected whether they would receive total or hemi-arthroplasty to determine which was better. To enroll enough patients, five hospitals, known as the Displaced Femoral neck fracture Arthroplasty Consortium for Treatment and Outcomes (DFACTO), participated.*

neck fractures



(clockwise) William B. Macaulay, M.D. with his son, William III; wife, Araxi; daughter, Corinne; and dog, Willow Creek Wallace.

"Usually they are to go from a seated position in an armed chair and are timed as to how long it takes them to stand up, walk 10 feet, turn around, walk back to the chair, and sit down," Dr. Macaulay explained. "They're told to do that as quickly as they can without risking injury and they're allowed to use whatever walking aid they might need. Sometimes it's nothing; sometimes it's a cane, a four-prong cane, or a walker. They're allowed to use whatever keeps them safe."

Will it be a total or a hemi?

For relatively younger, more active patients — usually those between 60- and 70-years-old — average WOMAC scores showed less stiffness and better range of motion with the total hip compared to hemi-arthroplasty. But, according to Dr. Macaulay, age should not be the deciding factor. Instead, he said, the best procedure should be determined on a patient-by-patient basis by asking the patient about his or her current living situation. If a patient lives and expects to remain in a nursing home, the hemi-arthroplasty might be best because it stabilizes more quickly, and less active patients are unlikely to wear out the joint.

"If a patient lives in an assisted living community with very little help, that's a gray area that needs more study, but if they live by themselves and do their own shopping and take public transportation, they typically do better with a total hip," Dr. Macaulay said.

Dr. Macaulay won the *Lawrence Dorr Award for the Most Outstanding Paper in Surgical Techniques and Technologies* at the AAHKS' 2007 Annual Meeting in Dallas.

His research results will be published in AAHKS' flagship publication, the *Journal of Arthroplasty*.

Dr. Macaulay said he will continue to monitor surviving patients and has applied for NIH funding. Although his application scored very well, he has not yet received funding, and will resubmit the application. He said he learned a lot by going through OREF's grant process. "I also took part in the OREF grant writing workshop, which was great," he said.

Clinical decisions made easier

Dr. Macaulay believes that OREF grants provide seed money for starting a research career and achieving success in applying for national funding, and that research is important to all orthopaedic surgeons, including those who do not conduct research themselves.

"Orthopaedic clinicians need research to help make difficult clinical decisions. We never thought twice about whether there was a better way of treating displaced femoral neck fractures. Everybody got a hemi," he explained. "But when you really study it rigorously and you realize it's a multi-billion dollar problem that is heading Medicare's way, and if we don't treat these fractures effectively then Medicare will go bankrupt on just this one public health problem alone, you realize how important research is."

Mentors and colleagues have agreed. Dr. Macaulay completed his residency at the University of Pittsburgh where **James H. Herndon, M.D.**, then chair of the department, insisted all his faculty members contribute to OREF and encouraged residents to understand OREF's mission. Joining the team at Columbia several years later, Dr. Macaulay found that Dr. Bigliani had the same policy. Now Dr. Macaulay himself encourages others to give to OREF.

"OREF needs to get a good pat on the back for encouraging guys like myself to do this research. If we hadn't received funding, the studies wouldn't have been done and the idea of even applying for the NIH funding would be a passing fancy." ■

both before and after surgery, and all forms were returned to Columbia for analysis. Questionnaires included the Harris Hip Score, a validated functional score created by renowned orthopaedic surgeon and OREF grant recipient **William H. Harris, M.D.** in the 1970s, and the Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC), a validated pain and functioning questionnaire. The WOMAC form asks 24 questions about pain, disability, and joint stiffness to evaluate pain and function in knees and hips.

"The pre-surgical WOMAC scores were absolutely abysmal, horrible numbers because patients couldn't even walk their pain was so bad when they came in with their hip fractures. So the WOMAC scores went from really bad numbers to very good numbers, regardless of which group the patients fell into," Dr. Macaulay said.

Quantitative analysis was also part of the study. In addition to pain scores, the WOMAC provides subscores that measure stiffness and range of motion. Dr. Macaulay also used a Canadian-based validated functional outcome tool, called the "Timed Up-and-Go Test," in which patients are timed as they follow a script of instructions.

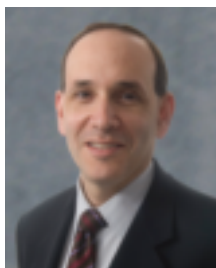
Group Benefits

Physician group encourages members to give to OREF

In 2007, the Illinois Bone and Joint Institute (IBJI) joined other physician groups in the top tier of giving to OREF by contributing more than \$60,000, a record the group hopes to top by year-end.

Sticking together

Founded in 1991 when hip and knee surgeon **Wayne M. Goldstein, M.D.** decided to cement a loosely formed network of physician groups



In 2007, Leon S. Benson, M.D. encouraged IBJI members to contribute to OREF's Annual Campaign, and he will continue the role this year.

into a fully merged practice, IBJI strived to solve some of the problems experienced by smaller practices. Today, IBJI consists of more than 740 employees, 86 of whom are physicians. Orthopaedists make up 90% of the physician group, while rheumatologists, podiatrists, and primary care sports medicine practitioners comprise the balance.

"Dr. Goldstein was interested in the best practice scenario to help us control our own destiny," said **Leon S. Benson, M.D.**, IBJI member and professor of clinical orthopaedics at Northwestern's Feinberg School of Medicine. In 2007, Dr. Benson encouraged IBJI members to contribute to OREF's Annual Campaign, and he will continue the role this year.

Power in numbers

By forming one large group, Dr. Benson explained, the smaller practices had a stronger support system for addressing what they believed to be unfair insurance reimbursements. According to Dr. Benson, insurance companies are unlikely to change their reimbursement rates for a small, five-physician practice, but will probably listen when 80-plus orthopaedists speak with a single voice.

Broader economic concerns also factored into IBJI's genesis. "Orthopaedic practice typically

has a very high overhead compared to other medical practices. Putting in a digital X-ray system can be prohibitively expensive if it's for only four doctors, but for 80, it's cost effective," Dr. Benson said.

In addition, large practices are better suited to negotiate with medical supply companies since they're buying in large quantities. And with more than 80 physicians, Dr. Benson said, IBJI generates enough work to be considered its own business, meaning it can justify creating its own billing and collections agency that specializes in orthopaedics.

Despite this, Dr. Benson noted, IBJI has not adopted "corporate medicine" culture. Individual groups were able to keep their community-based legacies. For example, with 50-plus years experience, one orthopaedic practice within IBJI is still known for taking care of grandparents and grandchildren within the same family.

According to Dr. Benson, however, the function of IBJI is not solely to benefit its members. Patients benefit, Dr. Benson said, in part from the collaborative nature of the group. "If other IBJI members are experts in subspecialty areas, working with them will give you better ideas and more knowledge. There are many benefits

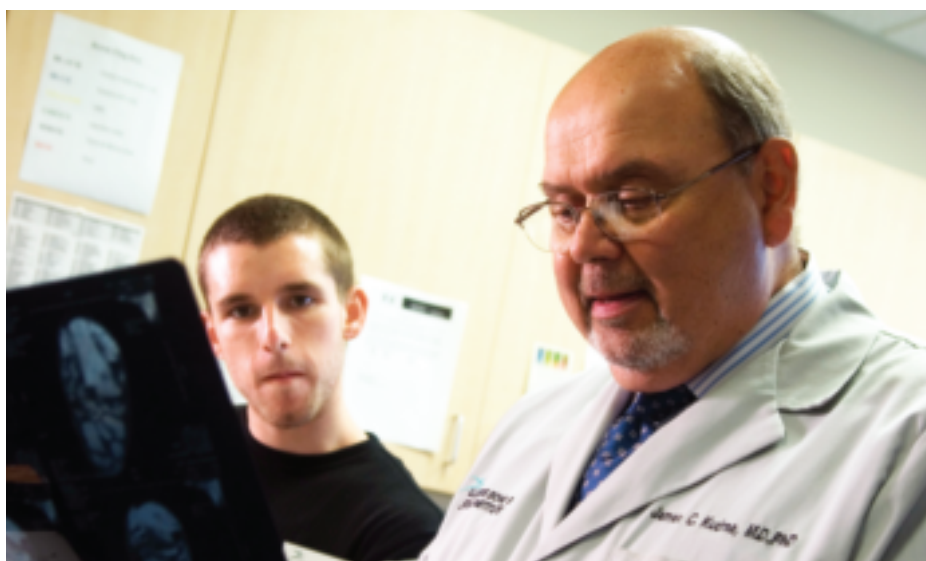
of belonging to IBJI, not just from the business end but from the patient services end. As IBJI members, we get to be better physicians."

Additionally, he noted, IBJI has its own physical therapy department and multiple imaging centers, which allow better control in managing the quality of diagnostic services and post-operative rehabilitation.

"Combined with IBJI's multiple surgery centers, the group can provide patients with treatment pathways that are a superior alternative to the wait times and logistical hassles that often characterize hospital-based services," Dr. Benson said.

Progress through teaching and conducting research

Striving for better patient care, most members of IBJI are teachers at universities, including Northwestern and the University of Illinois, Chicago. In addition, many IBJI members conduct research. IBJI Founder and President Dr. Goldstein has been involved in research since 1973. He is a renowned innovator of hip and knee replacement implants and minimum incision total hip (MITH®), a procedure that uses an incision three to four times smaller than the traditional 12 to 16 inches.



James C. Kudrna, M.D. (right, with a therapy student) is part of William J. Robb III, M.D.'s team that is contributing to the creation of a comprehensive database of hip and knee surgery patients.

IBJI member **William J. Robb III, M.D.**, chair of the department of orthopaedic surgery, Northshore University Health System (formerly Evanston Northwestern Healthcare), and OREF Board of Trustees treasurer, is currently analyzing a knee replacement system that replicates normal knee motion. He's also comparing the complications and recovery rates associated with minimally invasive total knee replacement with those associated with computer-assisted minimally invasive total knee replacement. And, with several other IBJI members: **James C. Kudrna, M.D.**, **Van P. Stamos, M.D.**, **Michael R. O'Rourke, M.D.**, and **Janet L. Beck, C.T. (A.S.C.P.), C.C.R.P.**, Dr. Robb is creating a comprehensive database of hip and knee surgery patients.

Dr. Benson himself is a clinician scientist. He has published 20 papers in peer review literature, written nine book chapters, and has presented original clinical research at more than 40 national meetings. He also serves as consultant reviewer for *The Journal of Bone and Joint Surgery*. Currently, Dr. Benson is involved in a project that evaluates the effect of synthetic bone graft on healing wrist fractures.

"IBJI is loaded with orthopaedic surgeons who are doing important research," Dr. Benson said. For example, **Matthew L. Jimenez, M.D.** is investigating the use of autologous bone marrow aspirate to aid in healing difficult fracture nonunions. And **Steven L. Haddad, M.D.** is pursuing research in total ankle arthroplasty.

"Dr. Haddad is one of the premier ankle replacement surgeons in the country and his clinical database and research protocols are helping shape the design of future implants," Dr. Benson said.

Rising to the challenge

Why are IBJI members so dedicated to education and research? "Teaching and research add flavor to your life. They make you a better doctor because you have to have a higher standard for yourself and the research makes the patient better in the long run



*IBJI therapist **Mr. R.J. Zamar, D.P.T.** takes a patient through a range of motion exercises.*



***Molly Mengarelli, A.T.C./L. M.A.**, an IBJI medical assistant, stands in front of MRIs at IBJI's main clinical facility in Glenview, Ill.*

because you're making progress in science," Dr. Benson explained.

Teaching and research also add a dynamic dimension to orthopaedic practice, according to Dr. Benson, and bring a sense of accomplishment that keeps doctors motivated and enthusiastic about their work.

"There's very little that I do in practice now that I did when I was a resident. Our progress and technology have changed our technique," he said. "The majority of IBJI physicians are involved in orthopaedic education on both a national and international level. Many of the group's physicians have been actively involved in developing new orthopaedic products and technologies in the arenas of joint replacement, spinal surgery, and fracture care."

Because so many IBJI members are involved with education and research, Dr. Benson believes that giving to OREF should be part of the practice group's annual routine.

"My attitude is that everybody in our organization should give, not because it's our philanthropic duty, but because it's our corporate philosophy — that one of the things we do as an organization is give to OREF," Dr. Benson said. "You don't just take care of patients by providing them services, you give

back to your community. There are a variety of ways to do that: by teaching, by researching, and by supporting the single leadership organization in the country for research and education in orthopaedics: OREF."

Good to go

In addition to orthopaedists writing individual checks to OREF, Dr. Benson wants to instill a sense of corporate responsibility. He believes that other organizations might follow suit if IBJI, a physician practice group not a university, establishes giving to OREF as its culture.

In 2007, just over 75% of the IBJI membership contributed to OREF's Annual Campaign. Dr. Benson hopes that nearly all, if not 100%, contribute in 2008. He's already received a good response from his first appeal.

"I sent an e-mail telling our members that it was that time of year again and all they had to do was reply with 'I'm good to go for OREF' in the subject line to let me know if they were on board. Within the first hour I received about 20% back with 'I'm good to go for OREF' in the subject line." He's hoping the trend continues.

"OREF is not just an organization that does some nice things for our patients. It is the single organization that has the most positive impact on our specialty." ■

Photos courtesy of Illinois Bone and Joint Institute.

Still Looking ... The Answer May Be Closer Than You Think

The Internet is becoming a new go-to place for orthopaedic surgeons preparing for revision surgery and other procedures that require removal of previously implanted devices. Through its X-Ray Identification service, OrthopaedicList.com offers 24/7 access, free of charge, to its online archive of hundreds of X-Ray images (patient information is masked to preserve privacy) to help orthopaedic surgeons identify implants by comparing their “unknowns” to “knowns.”



Company founder **James D. Hundley, M.D.** feels OrthopaedicList.com is a service whose time has come. “As older orthopaedic surgeons and manufacturers’ representatives retire, they take with them the ability to recognize many prostheses that future orthopaedists performing revision procedures will encounter on a routine basis.”

An OREF Corporate Associate since 2007, OrthopaedicList.com was founded by orthopaedic surgeon **James D. Hundley, M.D.** out of necessity. “I was scheduled to perform a total knee replacement arthroplasty in December 2002, which required removal of a femoral intramedullary (IM) rod that had been implanted 30 years prior,” Dr. Hundley explained. “I had seen many rods like it during the 1970s and knew the names of several lookalikes, but I had no idea which rod this was or who made it,” Dr. Hundley said. “Some implants require specially threaded extraction devices or specially headed screw drivers, or both, so it is prudent to know what is needed before beginning a procedure.”



Sunset at Lake Mattamuskeet, decoys in place, photographed from the duck blind where the business strategy for OrthopaedicList.com was hatched.

Dr. Hundley contacted colleagues and manufacturers’ representatives, but none could identify the rod. His search for a descriptive manual was another dead end. “Fortunately, the rod was simple and we knew that we could remove it with available extraction equipment,” Dr. Hundley recalled.

Hatching the idea

“The case went smoothly, but it stuck with me. I was telling the story to my son and son-in-law a month later, in a duck blind at Lake Mattamuskeet, near the North Carolina Outer Banks, of all places,” Dr. Hundley said. “They were both working on MBAs at the time, and we became intrigued with the idea of creating a list of implants to share with orthopaedic surgeons through the Internet. It was **Laurence E. Dahners, M.D.**, professor of orthopaedic surgery, University of North Carolina School of Medicine, Chapel Hill, N.C., who gave us the idea to start X-Ray Identification and submitted some of the first images.”

On July 31, 2003, OrthopaedicList.com went “live” with a listing of about 100 companies and close to 1,000 products. Still an all-volunteer effort, the online service now lists more than 2,200 companies and organizations and more than 8,500 products and services.

The directory of products and services, also accessible free of charge, is wide-ranging and is a convenient resource offering instant answers to orthopaedists, clinic managers, purchasing agents, and others. Products can be located through key word or phrase searches, by category, and with personal assistance from staff via the site’s Ask Bones feature.

Those interested in listing products and companies at OrthopaedicList.com have the choice of a basic, free listing or an enhanced listing, including more space, logo art or other graphic content, and preferential placement for which they pay a small fee.



*Lateral view of an injured heel treated with a Synthes stainless steel, locking calcaneal plate from **Steven R. Schelkun, M.D.** of San Diego, Cal. "Note triangle frame in middle and 'tabs' on distal limb. Locking screws are an option for each hole."*

Supporting OREF's mission

OrthopaedicList.com makes a contribution to OREF for each image that orthopaedic surgeons submit for inclusion in the X-Ray Identification archive. It also provides OREF with a complimentary enhanced site listing, as it does for professional societies and other foundations that address interests of the orthopaedic community.

"We wanted a way to encourage orthopaedists to submit images to our X-Ray Identification archive so it could help more surgeons. As an icon of orthopaedic giving, OREF was deemed the appropriate gift recipient," said Dr. Hundley.

"OREF improves patient care and the opportunity for orthopaedic surgeons to expand their knowledge and procedures by funding research and education. It elevates the public image of orthopaedic surgery and allows orthopaedic surgeons and others to give back to the profession that has provided them unmatched careers while feeling good about doing it."

Other links with the orthopaedic community

Recognizing the value of X-Ray Identification, a growing number of state and regional societies encourage members to help build the archive. Among these are societies in California, Pennsylvania, and Texas. The Florida Orthopaedic Association invites submissions through a hyperlink on its Web site home page.

Orthopaedic nurses and other professionals, including industry representatives, also visit the OrthopaedicList.com archive. "To our pleasant surprise, we have learned that our service is used for education by OR nurses, technical schools, and at various levels of medical training throughout the world," said Dr. Hundley. "We know of a large orthopaedic manufacturer that uses X-Ray Identification in the training of their new representatives. The images are available to educators to copy and use for free as their needs dictate."

Historical and current images are invited

Dr. Hundley hopes to expand the archive with images of all vintages. "**Dr. Ralph Coonrad** collected photographs of all known upper extremity prostheses as of 1982 and put them in loose leaf notebooks. Dr. Coonrad allowed us to scan the images and add them to the site. To our knowledge, OrthopaedicList.com is the only place orthopaedists can view these important images."

Share your images with colleagues and help OREF in the process

If you have digital images you'd like to submit, visit OrthopaedicList.com, then place your mouse on the "X-Ray Identification" tab at the top of the screen to reveal a flyout menu and click on "Submit X-Rays." The submission process will be familiar if you have uploaded documents in the past. If the images you

want to submit are conventional films, Dr. Hundley reports that it is easy to take a digital photograph of the films on a viewbox.

"By collecting the images now, we will be giving our younger colleagues at least a fighting chance of identifying prostheses that will all too soon be unfamiliar to surgeons treating aged patients," said Dr. Hundley. ■



*This image of a Druck Scheibe "thrust plate" hip prosthesis manufactured by Zimmer from a total, primary replacement has sparked a lot of conversation. It was submitted to OrthopaedicList.com by **Adam S. Bright, M.D.** of Sarasota, Fla.*

AOFAS Overseas Project, May 2008 Viet Tiep Hospital, Hai Phong, Vietnam

In the July/August 2008 issue of *Impact*, we featured Wright Medical Technology in an article that described the company's vice presidents' participation in the **American Orthopaedic Foot and Ankle Society (AOFAS)** outreach trip. Wright vice presidents traveled with AOFAS members to Vietnam and Cambodia where surgeons operated on patients with severe deformities. Regrettably, the caption for a group photo of the trip failed to identify AOFAS members. The photo is re-printed to the right, this time with all Wright and AOFAS representatives identified.



For more than 10 years, AOFAS has collaborated with OREF. In that time, OREF's designated giving program has raised more than \$1 million to support AOFAS-directed research and education projects to help advance the science and practice of orthopaedics. AOFAS' annual overseas medical project, funded by the Outreach and Education Fund, provides corrective surgery to children and adults with lower limb deformities due to polio, cerebral palsy, club foot, and injury. ■

A. Mr. John T. Treace, Wright Medical; **B. R. Dale Blasier, M.D.**;
C. Ms. Holly Robbins, Wright Medical; **D. Keith L. Wapner, M.D.**;
E. Mr. Peter Wapner; **F. Mr. Charles Wapner**;
G. Ms. Lousanne (Zan) Lofgren, C.A.E., AOFAS Executive Director



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The next step

Be sure to contact a tax professional and your IRA administrator if you are considering a gift under this law. Feel free to contact **Ed Hoover** at (847) 384-4354 or hoover@oref.org with any questions.

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