



Michael F. Schafer, M.D. Receives — and Shares — 2008 Tipton Award Northwestern University Medical Students Benefit

Serving as chair of one of the nation's most prestigious orthopaedic programs for 28 years, longer than any other in the department's 111-year history, and developing the first Comprehensive Review Course for orthopaedic surgeons are among a long list of achievements that earned **Michael F. Schafer, M.D.** the third annual **William W. Tipton Jr., M.D. Leadership Award**. Dr. Schafer's selection was announced as part of the American Academy of Orthopaedic Surgeons (AAOS) Annual Meeting March 5 – 9 in San Francisco.

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Members of the Schafer family celebrated at the 2008 Shands Circle Gala in San Francisco. (L to R) **Mr. Steve Schafer, Michael F. Schafer M.D., Mrs. Eileen Schafer, David A. Schafer, M.D., Ms. Kathy Ryan.** Not pictured: **Mr. Brian Schafer, Mr. Dan Schafer** and Dr. and Mrs. Schafer's **13 grandchildren.**



Mathias P. G. Bostrom, M.D. developed a model to simulate the benefits of weight-bearing exercise and is investigating whether this loading will enhance in vivo cancellous bone formation.

Research Aims to Improve Understanding of Bone Healing Career Development Award Goes to Mathias Bostrom, M.D.

After fracture repair or total joint replacement, patients may be able to get back on their feet quicker because of research being conducted by orthopaedic surgeon **Mathias P. G. Bostrom, M.D.**, funded partly by OREF.

The OREF Board of Trustees named Dr. Bostrom a 2008 recipient of its Career Development Award, which encourages a commitment to scientific research in orthopaedic surgery. A professor of orthopaedic surgery at Hospital for Special

Surgery in New York City, Dr. Bostrom will receive an annual stipend of \$75,000 for three years. He will use the award to further his studies of how to improve formation of cancellous bone, the spongy bone that becomes compromised with age and where most osteoporotic fractures occur.

"In addition to osteoporotic fractures, compromised cancellous bone leads to a multitude of other orthopaedic problems, such as limiting the ability to secure implants to bone," Dr. Bostrom said. "The need for revision

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discovering the future of orthopaedics



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

Stepping Up for Education

In March, I became the new chair of the OREF Board of Trustees. It is one of the distinct honors of my career, and I am eagerly looking forward to serving.

OREF and our Board gained strength under **John J. Callaghan, M.D.'s** leadership during his tenure as Board Chair between February of 2007 and March of 2008. We congratulate John on his election to the American Academy of Orthopaedic Surgeons' presidential line and extend our sincere appreciation for his energetic and imaginative leadership.

Under John's direction, OREF deepened and broadened its relationships with orthopaedic partners, expanding the services it offers as well as the number of groups it supports. John also took an active role with OREF's 50th Anniversary Campaign chairs, **Mr. John W. Brown** and **James R. Urbaniak, M.D.**, in achieving the campaign's ambitious \$100 million goal. Thanks in part to record-breaking giving in 2007, the campaign raised \$101.1 million over a seven-year period, 2001 through 2007.

Among my priorities as chair is sustaining higher participation rates for OREF's Annual Campaign to increase available dollars for current research and education initiatives. Serving as Vice Chair, Development, I saw 2007 contributions to the Annual Campaign increase 13.8% over the prior year. As a teacher, researcher, and clinician, I'm eager to find ways to bring momentum to this improved result. One way I think we can increase interest in OREF is to promote the educational programs it has funded.

In recent years, total joint arthroplasty, innovative procedures for correcting cartilage injuries, and better bone grafting, among many other advancements, have all emerged from research. Had the research stopped at the lab, however, the practice of orthopaedics would have remained stagnant. For more than 50 years, OREF has recognized the importance of funding educational activities in addition to research.

Since 1955, OREF has funded more than \$3.4 million in educational grants and awards. This includes more than \$639,000 in education grants given to the AAOS, and more than \$491,000 to the American Orthopaedic Association. OREF has also provided the National Institutes of Health (NIH) with more than \$203,000 in educational funding. Every year OREF funds approximately 10 Educational Grants of up to \$25,000. Since establishing the first Educational Grant in 1963, OREF has provided funding for nearly 200 such grants.

A three-part series of articles about the "E" in OREF appeared in the March, April, and May issues of *AAOS Now*. The issues are currently available in print and online at:

March – <http://www.aaos.org/news/aaosnow/mar08/research5.asp>

April – <http://www.aaos.org/news/aaosnow/apr08/research3.asp>

May – <http://www.aaos.org/news/aaosnow/may08/research2.asp>

Many more worthwhile education and research projects can be funded if we will step up, and I encourage everyone to visit www.oref.org/donate or fill out the form on page 15 to make a stepped-up contribution to the 2008 Annual Campaign to support 2009 research and education grants.

Thank you for your support,

William P. Cooney III, 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.

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Giving Back for Better Patient Care

In OREF's 53-year history we have funded approximately 3,200 research and education grants, totaling nearly \$88 million. OREF-funded research has led to dramatic reductions in operating room infections, the development of BMP, and the identification of the genetic defect that causes a rare bone disorder, among many significant outcomes.

Educational programs we fund, such as Resident Research Symposia, Journal Clubs, and Grant Writing Workshops, have developed generations of successful researchers, many who've applied their OREF research to obtain grants from larger funding bodies, including the NIH.

"Ultimately, leadership in orthopaedics means investing in what is best for the patient, which means investing in research and education."

— Gene R. Wurth, President and CEO

All of this was made possible through contributions from individual orthopaedic surgeons, practice groups, medical centers, and industry.

We recently acknowledged all 2007 contributors at our exhibit at the AAOS Annual Meeting in San Francisco. We gave special recognition to our longtime Order of Merit donors — those who give \$1,000 and above to the Annual Campaign — through our exhibit and the 2008 Recognition Luncheon.

Shands Circle members also received special recognition at our exhibit and at the Shands Circle Gala, where we celebrated the completion of our 50th Anniversary Campaign, as Dr. McCarthy notes in his column on page 4. Shands members' contributions go directly to the OREF Endowment, and are continually invested and re-invested while a portion of the earnings funds research and education projects each year. The Endowment provides a systematic way to support clinical advancements in perpetuity.

Without continued research, new ways of delivering care won't be possible. Ultimately, leadership in orthopaedics means investing in what is best for the patient, which means investing in research and education.

To learn more about becoming a Shands Circle member and the opportunity to establish a lasting legacy through a named research award, please contact **Ed Hoover**, VP Development, or me. To give to the 2008 Annual Campaign, please visit www.oref.org/donate or fill out the form on page 15 and mail in the postage-paid envelope provided.

Thank you for your support.



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:

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

2008 Shands Gala a Picturesque Event

The 14th Annual Shands Circle Gala in San Francisco brought together both familiar and new faces to toast OREF's success in raising \$101.1 million through our 2001-2007, 50th Anniversary Campaign. THANK YOU for all you have contributed to this milestone achievement!

Commemorative portraits and candid photos from our March 6 Gala at the landmark InterContinental Mark Hopkins can be viewed online at your convenience. To make it easier to locate specific images, we have organized the commemorative portraits by the subjects' last names and have posted candid photos on a separate page.

Please visit www.oref.org/shandsgalaphotos08 to view the photos of interest to you and for further instructions. You may (but are not obliged to) purchase photo prints and other items offered by Kodak through these pages.

Again, we deeply appreciate all you do to support research and education through OREF. More than 540 members now make up the Shands Circle. We welcome the 59 who joined in 2007 and the 11 who've become Shands members so far this year. Shands Circle members' contributions fund the OREF Endowment, which is comprised of a general fund



The 2008 Shands Circle Gala was held at the InterContinental Mark Hopkins in San Francisco.

Contact OREF

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

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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 **Shands Circle VIP Suite** at the AAOS Annual Meeting
- **Lapel pin** featuring the Shands Circle logo
- **Significant recognition** at the AAOS Annual Meeting and through other vehicles, including OREF's publications

for OREF and more than 30 other funds for specific causes that benefit the larger orthopaedic community. As of December 31, 2007, the approximate value of the OREF Endowment in cash and deferred gifts was \$70 million. Shands Circle commitments ensure that orthopaedic research and education are funded in perpetuity. Shands Circle members are also encouraged to support the OREF Annual Campaign, to provide current research and education funding. A 2008 Annual Campaign contribution will help fund important research and education in 2009.

Sincerely,

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



*Dr. Paul and
Mrs. Lyell Wright,
with their son, Ben.*



Carole Webb, R. N. and Mr. James Webb Jr.

The 14th Annual Shands Circle Gala in San Francisco brought together both familiar and new faces to toast OREF's success in raising \$101.1 million through our 2001-2007, 50th Anniversary Campaign. THANK YOU for all you have contributed to this milestone achievement!

Outright Gifts — Donating A-Z

Often the most satisfying gifts are those you offer right when the urge strikes — the type that allow you to see the immediate benefits of your generosity. Gifts you make today for immediate use are known as outright gifts, and there are many ways to make them.

Ways to Give As Soon As Today

In addition to accepting checks and cash by wire transfer, OREF is able to take secure donations by credit card online at www.oref.org/donate, by phone, and by mail. Your gift is deductible for income tax purposes when the charge is put on the card, even if the charge isn't paid until later.

Assets that have appreciated in value and have been held for more than a year, such as stocks or real estate, are an excellent source of outright giving. You can deduct the fair market value of the asset donated and pay no capital gains tax on the appreciation.



Consider donating a vacation home you no longer use or property purchased as an investment many years ago. In some cases you can donate your personal residence, yet reserve the right for you or a loved one to live there.

Valuable items that no longer fit your lifestyle or needs may make excellent charitable gifts as well. Please ask for details if you want to consider this option.

An outright donation is not only personally fulfilling, but also offers potential tax benefits. We would be happy to discuss how such a gift might work in your situation.

You can make your 2008 Annual Campaign contribution now by logging on to www.oref.org/donate.

Michael F. Schafer, M.D. Receives — and Shares — 2008 Tipton

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Continuously since 1975, Dr. Schafer has treated patients at three downtown Chicago hospitals: Northwestern Memorial, Children's Memorial, and Veterans' Administration Lakeside Hospital. Here, he is performing spinal fusion for scoliosis.

"This award is the highlight of my career, having been nominated by my peers, and knowing there was another group of peers who selected me," said Dr. Schafer. "I never embarked upon or needed public recognition. I always felt it was my responsibility to give back to others for having been fortunate enough to become a doctor and an orthopaedic surgeon."

Established by friends, colleagues, and organizations through OREF, the Tipton Award honors the qualities exemplified by the late Dr. Tipton, including his commitment to mentorship, diversity, bridge-building, and collaboration.

"Being selected for this award means more to me than I can put into words," said Dr. Schafer, Ryerson Professor and Chair of the Department of Orthopaedic Surgery at Northwestern University's Feinberg School of Medicine. "Bill Tipton and I were interns together and became very close friends. Many years ago, we talked about how we could make a contribution to medicine."

"We used to take breaks on the top floor of Wesley Memorial, out on the porch. You could look out and see Indiana," Dr. Schafer continued. "We were up there one spring evening and I'll never forget Bill asking, 'Do you think we'll ever make a difference?' No question, Bill Tipton made a huge difference for me personally, and everyone whose life he touched."

Dr. Schafer, too, through his decades of treating patients and teaching a wide spectrum of orthopaedists — residents, established clinicians, researchers, and educators — has touched countless lives. Now he will use the financial portion of the Tipton Award to help cultivate the next generation of orthopaedic healers.

In acknowledgment of Dr. Tipton's dedication to education and his own lifelong commitment to teaching orthopaedic surgeons, Dr. Schafer will establish at Northwestern's Feinberg School of Medicine the William W. Tipton Jr., M.D. Orthopaedic Surgery Student Fund. The fund will provide five \$1,000 stipends to encourage interested medical students to explore a commitment to orthopaedics through observing surgery and conducting a research project. The stipends will be offered on a competitive basis. Applicants will be evaluated by Dr. Schafer and his department vice-chairs, **Andrew D. Bunta, M.D.** and **Alan W. Yasko, M.D.**

Recognized early in his career and frequently since, Dr. Schafer has been encouraging young orthopaedic surgeons continually since the mid-1970's.

"He believed in me more than I believed in myself," said **Craig D. Brigham, M.D.**, one of Dr. Schafer's former residents, now chief of the spine teaching service of the Carolinas Medical Center Orthopedic Residency program. Dr. Brigham met Dr. Schafer when he interviewed for a position at Northwestern University Medical School in 1975. Although Dr. Brigham hadn't been considering orthopaedics, he was inspired by Dr. Schafer, then a junior member of the faculty, and



Pictured shortly after joining the faculty at Northwestern University's Feinberg School of Medicine, Dr. Schafer joined his residents to celebrate their passage of the American Board of Orthopaedic Surgery exams. At right, **Michael R. Hajek, M.D.**

Award

"I never embarked upon or needed public recognition. I always felt it was my responsibility to give back to others for having been fortunate enough to become a doctor and an orthopaedic surgeon."

— Michael F. Schafer, M.D.



A lifelong leader, then Major Michael F. Schafer (second from right) is shown receiving congratulations as Marmion Military Academy Class President from The Rt. Rev. Abbot Benkert, O.S.B.

completed his residency in orthopaedics at Northwestern, followed by a spine fellowship.

"I have personal friends from residency who have similar stories of how Mike made a lasting difference in their careers," said Dr. Brigham. "It is just one of his strengths and a tribute to his character and lifetime commitment to the development of young doctors."

Timothy J. Shannon, M.D., another former resident, now practices orthopaedic surgery through the Aiken Regional Medical Centers, Aiken, S.C. "During residency he instilled in me a commitment to a lifetime of learning," said Dr. Shannon. "Through his actions as an orthopaedic surgeon, program director, professional team physician, husband, and father, he showed me how to balance professional and personal life, all the while maintaining compassion for patients."

Dr. Schafer has also helped hundreds of experienced orthopaedists to more fully develop their skills. Dr. Schafer served as a

faculty member for the AAOS Orthopaedic Educators' Course from 1977 until 1992. He also developed and then chaired the first Comprehensive Review Course for orthopaedic surgeons.

In addition, Dr. Schafer has been a volunteer mentor in the AAOS Leadership Fellows Program since its inception.

"Getting matched with Mike Schafer for the Leadership Fellows Program was like winning the lottery," said **Laurel C. Blakemore, M.D.**, chief of orthopaedic surgery and sports medicine at Children's National Medical Center, Washington, D.C. "His advice and support helped me navigate a transition to a leadership position in one piece. If I could be half of the inspiration to someone else that he is to many of us, I'll consider my career a success."

Currently, Dr. Schafer is mentoring **Timothy S. Johnson, M.D.**, assistant professor in orthopaedic surgery at Johns Hopkins School of Medicine. "Mike is an

outstanding mentor," said Dr. Johnson. "He has been a loyal, accessible, and thoughtful advisor to me."

Among Dr. Schafer's further contributions to the AAOS are his six years as Chairman of the Committee on Graduate Education; two years as Chairman of the Educational Survey Task Force; and four years on the Instructional Course Committee, one as Chairman.

Dr. Schafer has served in leadership positions with Association of Bone and Joint Surgeons, American Orthopaedic Association, Association of Orthopaedic Chairmen, Academic Orthopaedic Society, American Orthopaedic Society for Sports Medicine, OREF, and Scoliosis Research Society. He has been an honorary member of the Ruth Jackson Society since 1990.

As one more measure of Dr. Schafer's stature, he was named to the AAOS Board of Directors on March 6, 2008, a choice Dr. Tipton would no doubt appreciate. ■

OREF at Annual

ORS/OREF Breakfast



▲ At the ORS/OREF Grant Recipient Recognition Breakfast, **Victor Goldberg, M.D.** (L) received the inaugural Distinguished Investigator Award, presented by **Thomas Einhorn, M.D.**



▲ ORS/OREF Recognition Breakfast keynote speaker **George Muschler, M.D.** discussed the crucial roles that mentorship and early funding played in his career as a clinician scientist.



▲ The 2nd Annual ORS/OREF Grant Recipient Recognition Breakfast celebrated how the two organizations have collaborated to improve orthopaedics. Pictured: **Quanjun Cui, M.D.** (L) and **Joseph Lane, M.D.**

2008 Exhibit



▲ The OREF exhibit thanked all 2007 contributors. Longtime Annual Campaign contributors, Shands Circle members, and Corporate Associates received special recognition.

Recognition Luncheon



The Recognition Luncheon is made possible each year through a grant from the **Pfizer Medical Humanities Initiative (PMHI)**. (L-R) **Stuart Hirsch, M.D.** thanked Pfizer representatives **George Sands, M.D.** and **Mr. Michael Flesher**.

◀ The 2008 Recognition Luncheon honored the leadership of longtime Order of Merit donors — including **Drs. Susan and William Tully** — who support ongoing research and education with a gift of \$1,000 or more to OREF's Annual Campaign.



▲ **Michael Schafer, M.D.**, 2008 recipient of the **William W. Tipton Jr., M.D. Leadership Award**, received congratulations from **Mrs. Patricia Tipton** and the two prior honorees — 2006 recipient **Richard Haynes, M.D.** (far left) and 2007 recipient **Stuart Hirsch, M.D.** (far right), featured speaker at OREF's 2008 Recognition Luncheon.



the 2008 Meeting

Leadership Breakfast

Richard Haynes, M.D. and DePuy Worldwide VP, Communications **Ms. Sarah Colamarino** greeted each other at the annual OREF Leadership Breakfast. The Breakfast presents a unique opportunity to network with distinguished grant recipients, orthopaedic opinion leaders, and industry representatives committed to OREF's mission.



A strong and productive alliance with industry enables OREF to fund quality programs that advance the orthopaedic profession, ultimately leading to improved patient care. Pictured (L-R): **Ms. Kay Gerth, HCA**, **Ms. Yin Becker**, Stryker, and 2006-2007 OREF Board Chair **John J. Callaghan, M.D.**



Industry leaders had an opportunity to meet with OREF grant recipients during the 2008 Leadership Breakfast. Pictured (L-R): 2007 Clinician Scientist Award recipient **Cristin Ferguson-Hannak, M.D.** with **L. Andrew Koman, M.D.**, 2008 OREF Resident Research Training Grant recipient **Kathryne Stabile, M.D.**, and Wright Medical President and CEO **Mr. Gary Henley**.



(L-R) **Mrs. Lori and Mr. Fred Kolb**, **Mr. Thomas and Mrs. Betty Coull**, and **Dr. Richard and Mrs. Kathleen Kyle**.

50th Anniversary Campaign Co-Chairs **James Urbaniak, M.D.** (left) and **Mr. John Brown** highlighted the campaign's success.



Shands Circle Gala



Ian Clarke, Ph.D. danced with his wife, **Mrs. Anne Clarke**.

(L-R) **Mrs. Connie Teuscher**, **Dr. David Teuscher**, **Mrs. Bunny Scutchfield**, and **Mrs. Sherril Haynes**.



completing the brief survey at www.oref.org/2008amsurvey.

Piecing Together the Standard of Care Puzzle

Dedicated to research that leads to better care for chronic diseases, Medtronic supports OREF as a Platinum-level — \$200,000 and above — Corporate Associate.

“Research and development is the engine that advances the devices patients and physicians can access,” said **Hallett H. Mathews, M.D.**, who was a spinal surgeon for 22 years before becoming Medtronic’s vice president for medical affairs. “Medtronic is research.”

According to Dr. Mathews, his experience as a surgeon is beneficial to his current career.



Hallett H. Mathews, M.D.

“I’m on a different career path that employs a lot of my previous efforts in product development and research, and clinical application of new theory and techniques, to help surgeons help patients,” he explained.

On this new career path, Dr. Mathews said, one of his challenges is integrating all aspects of the many Medtronic divisions — from cardiac to orthopaedic — all of which embrace Medtronic’s commitment to both

“Research supported by OREF is done independently from industry, so it’s done without bias, in the purest of ways.”

— **Hallett H. Mathews, M.D.**

bench-top and clinical research. Product development couldn’t occur without both types, Dr. Mathews said.

“You can’t make a widget without understanding that widget upside down and sideways, and understanding how the widget is going to be used and what the outcomes are. You don’t even start a process until you know what it’s going to do.”

According to Dr. Mathews, bench-top, or laboratory, and clinical research play equally important roles in the development of orthopaedic devices. In the lab researchers find ways to develop the products orthopaedists need for their patients. Those products are then evaluated for effectiveness clinically.

“Medtronic has a large number of what we call IDE studies — Investigational Device Exemption studies. They’re heavily weighted toward unlocking the keys of success and understanding what improvement in outcomes is all about.”

One of Medtronic’s main goals, Dr. Mathews said, is to manage chronic disease states. Spinal patients, for example, tend to have comorbidities — multiple pathologic processes that continue even after they’ve been treated for their condition. Medtronic aims to keep these comorbidities under control.

“The whole goal is bench-top research, clinical research, and evidence-based medicine that help us determine which devices heal patients or manage their condition. And if the patients aren’t getting better, research can help us determine why.”

Founded by **Mr. Earl E. Bakken**, a University of Minnesota engineering student, Medtronic has long been involved in research and development of many different medical devices. Medtronic began as a medical equipment repair company formed after Mr. Bakken and his brother-in-law, the late

Mr. Palmer J. Hermundslie, discussed Mr. Bakken’s part-time work servicing medical equipment at Northwestern Hospital in Minnesota.



Medtronic’s Spinal and Biologics business unit, located in Memphis, Tenn.

It was after Mr. Bakken met **C. Walton Lillehei, M.D.** at the University of Minnesota that Medtronic became a well-known name. Helping Dr. Lillehei, Mr. Bakken and Medtronic developed the first wearable external cardiac pacing system. Later, when **William M. Chardack, M.D.**, **Andrew A. Gage, M.D.** and **Mr. Wilson Greatbatch**, an engineer, developed the first internal pacemaker, Medtronic bought the patents and continued to improve on the design.

Eventually Medtronic expanded beyond cardiac devices and treatments to develop products that: address Parkinson’s disease through neurological therapies; control chronic pain, severe spasticity, and debilitating tremor; treat symptoms of cerebral palsy and spinal cord injury; and correct degeneration of the spine, to name a few.

As Medtronic expanded its product base, the value of research was reinforced. So when Medtronic entered the world of bone healing, it was natural to develop a relationship with OREF.

"Medtronic is very committed to understanding bone metabolism and to meeting the needs of clinicians for their patients' bone to grow in areas where it couldn't grow before. It really fits into what OREF is all about and what orthopaedic surgeons need clinically on a day-to-day basis," Dr. Mathews said.

Medtronic supports OREF, Dr. Mathews said, to help clinicians and researchers deal with musculoskeletal problems, which can often be devastating. By contributing to research and education through OREF he hopes Medtronic can support various orthopaedic specialties, including those that involve tissue engineering, to help fulfill the company's goal of achieving better treatments for chronic diseases.

"If OREF didn't exist, Medtronic's research and development initiatives would be affected because we wouldn't have the quality of research that's coming from OREF. Medtronic and other companies use the fundamentally well-researched knowledge that comes out of projects OREF is funding to build support for treatments and technology for the future. OREF funds quality research that is well-respected, and Medtronic is proud to be part of that process."

Medtronic was further encouraged to make its Platinum-level contribution, Dr. Mathews said, by OREF's position as an independent funding source.

"Research supported by OREF is done independently from industry, so it's done without bias, in the purest of ways. We don't look at things with the eye of how Medtronic benefits, but we need to have the ability to conduct research independently — without the potential bias conflicts that might exist innately with a company or with an individual who's funding him or herself. That bias is best removed by an independent source, and OREF serves that role."



By contributing to research and education through OREF, Medtronic hopes to support various orthopaedic specialties, including those that involve tissue engineering, to help fulfill the company's goal of achieving better treatments for chronic diseases.

Medtronic's philanthropic interests do not end with OREF. Medtronic also serves the community through the Medtronic Foundation, established in 1978.

"The Medtronic Foundation is involved in disaster relief and in supporting the advancement of medical science in many under-developed countries," Dr. Mathews explained. "The staff at Medtronic routinely receives updates that tell us about Medtronic Foundation's relief efforts for disasters around the world."

In addition, the Medtronic Foundation supports programs focusing on health, education, and community issues, and, among other programs, has developed the Science and Technology Are Rewarding (STAR) program to support science projects for students from kindergarten through high school. On another front, the Foundation's Full Life Patient Partnership teaches patients how they can live fuller lives, helping fulfill Medtronic's goal of managing chronic diseases.

These goals are dependent on medical research as well, however.

"There has been a research-based explosion over the last several years. Before, we had professors and a few core texts and journals. But now, research drives thinking. Research drives outcomes. Research drives R&D and research is a huge part of today's medical profile. It is much more rigorous than it was years ago."

The emphasis on research is being driven in part, Dr. Mathews said, by insurance companies and patients alike seeking evidence-based medicine, and he believes it will mean an even more critical role for OREF in the future.

"Research is the key to success and good research leads to great clinical outcomes. Evidence-based medicine drives thinking and the standard of care. It's here and it's going to be an even more pervasive piece of the puzzle down the road. I see OREF becoming a bigger piece of the overall solution as well." ■

Finding the Right Practice

Dinner Programs for Residents and Fellows

Clinical excellence aside, getting established as a new orthopaedic surgeon is no easy task. Last fall, in collaboration with **Hospital Corporation of America (HCA)**, OREF introduced a series of evening gatherings to offer residents and fellows an opportunity to sort through real-world questions that they must soon answer. Among them: What practice setting appeals to you most? How much clinical autonomy are you looking for? What debt management options should you consider?

Content has included interviewing techniques, contract issues, and salary negotiations. Participants are encouraged to attend with their spouses or partners. Feedback indicates participants greatly appreciate receiving timely and relevant information, which they might not otherwise receive.

To date, OREF has organized these programs for residents and fellows at Campbell Clinic, the combined Harvard program, Hospital for Special Surgery, Mayo Clinic,

Northwestern University's Feinberg School of Medicine, and Rush University. Additional programs are being scheduled through 2008.

The programs are supported through an educational grant from HCA, which includes a donation to OREF in the name of each participating resident or fellow.

For more information, please contact:

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Orthopaedic Research & Education Foundation

Saluting Our Corporate Associates

OREF is proud to acknowledge these Platinum-level (\$200,000 & above) Corporate Associates 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 — \$200,000 & above



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Boehringer-Ingelheim Pharmaceuticals Inc. Sponsors AAOS 2008 Sunrise 5K Run Raises \$7,200 for OREF's 2008 Annual Campaign



Photos courtesy of AAOS

"GO!" At precisely 6 a.m. the competitors set off on a scenic, 3.1 mile course that included two legs along the San Francisco waterfront.

Thanks to Gold-level OREF Corporate Associate **Boehringer-Ingelheim Pharmaceuticals Inc.**, and hundreds of early rising runners attending the American Academy of Orthopaedic Surgeons (AAOS) Annual Meeting in San Francisco, OREF will receive a contribution of \$7,200. The contribution represents 100% of aggregate registration fees, \$25 per runner, and will be

added to OREF's 2008 Annual Campaign to further orthopaedic research and education.

The 2008 Sunrise 5K Run was held on Specialty Day, Saturday, March 8, and was open to all Annual Meeting participants. Runners gathered for warm-up exercises at 5:45 a.m. at AT&T Park, home of the San Francisco Giants baseball team. At 6 a.m. sharp OREF President and CEO

Mr. Gene R. Wurth called "ready-set-go" and the runners took the course, along China Basin, across the new University of California San Francisco Medical School campus and on to the finish line at the San Francisco Yacht Harbor on the Embarcadero.

A total of 184 runners ranging in age from 8 to 80 completed the run. Congratulations — and thank-you — to all the competitors!



OREF President and CEO **Gene Wurth** offered pre-dawn words of thanks and encouragement to hundreds of runners assembled for the AAOS 2008 Sunrise 5K Run.



Men's Division Top Three (L-R): **Mr. Erik Lindstrom**, Minneapolis, Minn. (0:16:27); **Mr. Mike Greime**, Cincinnati, Ohio (0:14:51); **Matthew F. Halsey, M.D.**, Fresno, Calif. (0:16:10).



Women's Division Top Three (L-R): **Laura M. Gehrig, M.D.**, Shreveport, La. (0:21:09); **Ms. Veronique Beaudoin**, Mont Bonnot, France (0:21:00); **Ms. Laurie Hannum**, Wilmington, N.C. (0:21:04).

Research Aims to Improve Understanding of Bone Healing

continued from page 1

total joint arthroplasty often is due to adverse effects of the implant on the surrounding cancellous bone. While great advances have been made in improving the implants and fixation methods used in total joint arthroplasty, little attention has been paid to understanding or enhancing the cancellous bone tissue with which they interact."

To address this scientific gap, Dr. Bostrom developed a new animal model of loading on cancellous bone. The model, which applies a compressive load to bone, simulates the benefits of weight-bearing exercise for increasing bone mass. He will study whether this loading will enhance in vivo cancellous bone formation after systemic administration of the anabolic agent parathyroid hormone (PTH). Intermittent administration of PTH is known to stimulate bone formation in osteoporosis, especially in load-bearing sites, such as the vertebrae.

"We don't know, however, if PTH builds new bone in the presence of mechanical loading," Dr. Bostrom said. "I believe PTH and load-bearing work synergistically and will have a greater effect than either alone."

From his preliminary studies, Dr. Bostrom said it is surprising how little load is needed for an improved bone response. In his current project, he will compare two different load magnitudes applied to the distal femur of the rabbit and then analyze changes in bone quality and quantity. Additionally, he will explore the cellular pathways involved in the anabolic response to mechanical load and PTH to better understand the mechanisms of action. Results may affect future orthopaedic treatment, he said.

"If we find, for example, that using PTH and a loading protocol significantly enhances the amount of bone," Dr. Bostrom said, "our approach to managing osteoporotic hip [fractures] may be radically different. Instead of doing surgery right away, it may mean we give the patient PTH or some other agent."

"Ultimately, this knowledge should help us improve bone quality and thus improve the health, activity, and quality of life of our patients."

— *Mathias P. G. Bostrom, M.D.*

About 1.5 million osteoporosis-related fractures occur each year in the United States, according to the National Institutes of Health. Fixation of these fractures remains problematic, with malunions occurring frequently.

"Dr. Bostrom's research will advance our understanding of osteoporosis and fractures, and their treatment," said OREF's vice chair, grants, **Thomas A. Einhorn, M.D.** He called Dr. Bostrom "a recognized thought leader in orthopaedic sciences."

The OREF Career Development Award, according to Dr. Bostrom, will speed his ability to answer important questions about the interaction of bone with its mechanical environment. "Ultimately, this knowledge should help us improve bone quality and thus improve the health, activity, and quality of life of our patients," he said.

In addition to funding from OREF, Dr. Bostrom's work has received financial support from the National Institutes of Health and Smith & Nephew, an orthopaedics company headquartered in London.

Besides his appointment at Hospital for Special Surgery, Dr. Bostrom is a professor of orthopaedic surgery at Weill Medical College of Cornell University, New York City, and chief of orthopaedics at Helen Hayes Hospital, West Haverstraw, N.Y. He completed his orthopaedic surgery residency at Hospital for Special Surgery and also performed a research fellowship and a hip and knee surgical fellowship there. Dr. Bostrom received his medical degree from The Johns Hopkins University in 1989, after earning a bachelor's degree in physics from the University of Virginia, Charlottesville.

Candidates for OREF's Career Development Award must have completed a residency in orthopaedic surgery and demonstrated a sustained interest in research and excellence in clinical training. ■



Intermittent administration of PTH is known to stimulate bone formation in osteoporosis, especially in load-bearing sites, such as the vertebrae.

THANK YOU for Supporting OREF's 2008 Annual Campaign

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0805-02



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Invitation to Apply for 2009 Funding — Applications Due October 1, 2008

OREF is pleased to welcome applications for 2009 funding for qualified, clinically relevant orthopaedic research and education projects. All OREF grant and award recipients are selected through OREF's independent, peer-review process, which is modeled on the process used by the National Institutes of Health. For 2009 funding, applications are due (received by OREF) no later than October 1, 2008 and recipients will be notified no later than February 25, 2009.

OREF invites orthopaedic investigators and educators to apply for the following grants and awards:

- OREF Research Grants
- OREF Prospective Clinical Research Grants
- OREF Career Development Awards
- OREF Resident Clinician Scientist Training Grants
- OREF Clinical Research Awards
- OREF Educational Grants
- *JBJS* Resident Journal Club Grants
- Fred W. Hark, M.D. and William A. Hark, M.D. Lectureships
- OREF State Orthopaedic Society Awards
- NIAMS/OREF National Research Service Award Post-doctoral Fellowships in Epidemiology, Clinical Trials, and Outcomes Research in Orthopaedic Surgery

Applications for additional grants and awards may be invited later in the year. To obtain electronic application forms, register for updates on available grants and awards, and additional information please visit www.oref.org/grants or www.oref.org/residentgrants

