FARM Foundation for Advancement in Research in Medicine, Inc. Orthopaedics

FARM Quarterly Newsletter

Volume 1, Issue 2

Founder's Message

FARM, through an energetic and responsive Board, financial contributions, and a growing volunteer group has entered a new phase of development.

Important projects including Cartilage Growth and Alternate Bearing Surfaces have been partially funded. Four corporate sponsors have been added, two symposia have been sponsored, and the developmental stages of BoneSmart® has begun.

We thank all those involved who support alternative material research for implant surgery and other orthopaedic applications. Please become a sponsor or contact FARM for more information.

Warm regards,

Richard Warner

Inside this issue:

FDA Approves State-of-the-Art Ceramic Hip

In late January of 2003, the United States Food and Drug Administration (FDA) granted approval for ceramic-on-ceramic bearings (both alumina and zirconia) on total hip arthroplasty to Stryker Howmedica Osteonics and Wright Medical.

Developed for the younger and more active patient populations this ceramic-on-ceramic system has demonstrated higher wear rates than conventional implants. It is expected to provide an important advancement for improving the long-term performance of artificial hip joints. Benefits of ceramic-on-ceramic bearings were demonstrated in a 5-year clinical study covering the largest series of ceramic-on-ceramic total hip procedures ever performed in the United States.

Stephen Murphy, M.D., an investigator in the study, commented, "I've done about 180 ceramic-ceramic THA's since June of 1997. The results have been quite excellent. None of the hips have dislocated nor has there been a single case of either wear or osteolysis thus far. Alumina wear particles also appear to cause less reaction in the body than plastic particles do. Alumina ceramic-ceramic bearings may soon be the gold standard in total hip replacement."

Ceramic-on-ceramic bearings have been used for more than 20 years internationally. This event marks the first commercial device available in the U.S. Until this time technologies used in the U.S. for total hip replacement included conventional metal-on-polyethylene and metal-on-metal articulations. An estimated 180,000 hip procedures requiring press-fit acetabular components will take place in 2003.

U.S. Department of Health and Human Services
FDA Food and Drug Administration

FARM Sponsors Successful Masters Series II and Bioceramics 15 Meetings

In December 2002, the International Society of Ceramics in Medicine (ISCM) held the 15th annual Bioceramics conference with Besim Ben-Nissan, PhD as the chairman. The Masters Series II, a one-day focus meeting attended by members of the orthopaedic community interested in the current updates on alternative bearing surfaces and alternative materials for implant surgery was held after Bioceramics 15. Most recently, the Masters Series' were presented in Costa Mesa, California, USA and in Sydney, Australia.

Rocco Pitto, MD, PhD with Ian Clarke, PhD in Australia

stryker Howmedica OSTEONICS

Rocco Pitto, MD, PhD, Douglas Green, Besim Ben-Nissan, PhD, and James Buchan, MD at Bioceramics 15 in Australia

FARM, through its international faculty, can host a Master Series worldwide. Please contact FARM for more details.

Computer Assisted Orthopaedic Surgery of the Hip
by Dr. Pitto R.P., Dr. Schmidt R.

Computed tomography (CT) is a radiological method for three-dimensional (3D) viewing and reconstruction of bone structures. We use CT in total hip arthroplasty (THA) for preoperative planning of implant size and position, and for intraoperative computer-navigated cup insertion using a 3D CT-based system (CAPPA, CAS-Innovations AG, Erlangen, Germany). CT-derived technology is also used for postoperative evaluation of implant positioning and analysis of bone remodeling at follow-up.

The same standard CT-scan-mode using spiral technique is applied for all examinations. The analysis of CT-data is performed with the CAPPA postOP software tool assessing bone density (BD, mgHA/ml) of the femur and of the acetabular bone. In a cadaver study satisfactory accuracy was observed between the CT-based planning and navigation process of the cup and the postoperative cup position.

This concept postulates the use of CT assisted 3D preoperative planning, intraoperative navigation and follow-up evaluation using the same CT-technique to test the feasibility and precision of computer assisted orthopaedic surgery (CAOS). This is the first integrated tool designed for preoperative, intraoperative, and postoperative CAOS in total hip arthroplasty.

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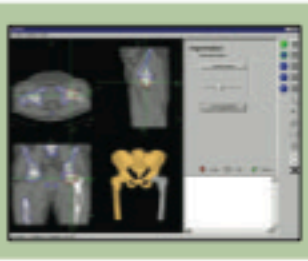
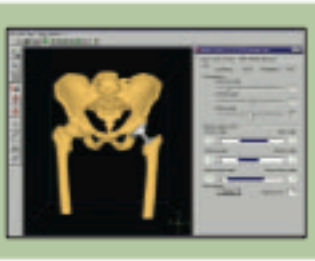
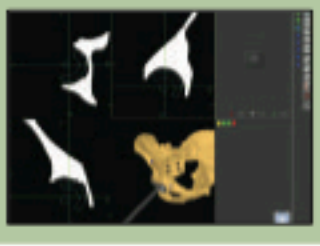
Dr. Schmidt, R.: Department of Orthopaedics, University of Erlangen-Nuremberg, Erlangen, Germany







FARM U.S. Postage Stamp

FARM has submitted a proposal for a four-part U.S. postage stamp with orthopaedic graphics endeavoring to raise public awareness for the need of research in the orthopaedic field.

The stamp will cost several cents more than the basic rate of postage in order to raise money for research.

In February, the Postmaster General notified FARM that their design shall be reviewed by the Stamp Advisory Committee in April.

Visit our website for updates on the progress of the orthopaedic postage stamp progress at www.farmortho.org.

FARM

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www.bonesmart.org

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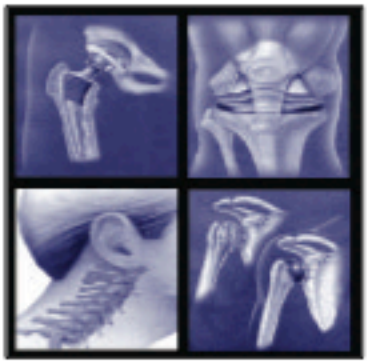
Enterprise rent-a-car

A special promotion is being run world-wide by Enterprise to support FARM. A reference number and user discount has been issued to be used by FARM supporters. Use account #32U6040 when making a reservation and you will receive a discount. FARM will receive a portion of your rental fee as a donation.

BoneSmart®

FARM is in the developmental stages of introducing 'BoneSmart®' a national, consumer awareness campaign for the cure and treatment for musculoskeletal conditions.



Bone Smart® will function as an information clearinghouse for new events that have taken place in the orthopaedic community specifically dealing with new and improved prosthetic materials for implant surgery. BoneSmart® will offer plain-English patient and consumer materials in both streaming media and print. Additionally. BoneSmart® will have an online physician's referral directory so consumers and patients can easily locate a medical professional near them. Particularly those doctors who are working in alternative implant surgery techniques.

Currently FARM is in discussions with the Surgeon General's office in Washington DC about a joint promotion of BoneSmart® and the release of their Joint & Health Report scheduled for mid-2004.

For further information, visit our website at www.farmortho.org or contact us at info@farmortho.org.

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FARM's Grant Committee Formation

FARM is forming a Grant Making Committee that will be responsible for determining eligibility and awarding FARM grants to qualified individuals and organizations that help support our mission of furthering research and creating greater patient-awareness of treatment options.

The Grant Making Committee will look for opportunities to support efforts that promote high-quality and scientifically sound basic, clinical, and applied research to enhance the development and use of natural and synthetic materials for the repair, regeneration, restoration, reconstruction and replacement of skeletal and related systems.

Grants will be awarded to individuals and organizations working in joint replacement and related areas such as cartilage and bone repair, nano coatings, and osteolysis. Additionally the committee will give grants to the technological entrepreneur who can develop a product leading to a patent, as well as the academic investigator desiring to advance the knowledge of arthroplasty. FARM will also continue to look for opportunities to support symposia and continuing education meetings for surgeons and researchers (such as the Ceramic Masters Series), patient education and self-care (such as BoneSmart), and research with the greatest potential for improving the lives of people with orthopaedic disabilities.

For more information or to submit a grant proposal, please contact info@farmortho.org.