

The **Value** in Musculoskeletal Care



defining value
measuring value
promoting quality
cost effective care
containing costs
patient perspective
resource allocation
reducing disparities
increasing prevention

October 12-13, 2011

Washington Court Hotel
Washington, DC

Welcome Message

Dear Delegates,

On behalf of the United States Bone and Joint Initiative (USBJI), we would like to welcome you to Washington and thank you for joining us in what should be an exciting and challenging discussion on value in musculoskeletal health care. Since the financing of health care in the United States will undoubtedly change, we strongly believe that the musculoskeletal community must develop ways to measure the value of the care it provides and develop strategies to optimize musculoskeletal care in the future.

To meet that goal, we have invited to the Summit a broad range of stakeholders representing patients, providers, payors, government, industry and professional organizations. Together, we will collaborate to develop a consensus statement on value that can be an action framework for future activities, including advocacy at the local, state and national level.

As we embark on this program, we would like to thank our speakers, sponsors and the staff of the USBJI who devoted extraordinary effort to making this Summit a success. We extend a special appreciation to Toby King, the Executive Director of the USBJI, who, with great skill and commitment, has worked hard to keep a sharp focus on value and to provide a meeting structure that will be interactive, informative and enjoyable.

We look forward to working together in the coming days as we try to understand the meaning of value in musculoskeletal health care and assure its central role in the future.

Sincerely,



Gunnar B.J. Andersson, MD, PhD
Summit Co-Chair



Steve M. Gnatz, MD, MHA
Summit Co-Chair



David S. Pisetsky, MD, PhD
Summit Co-Chair

Program Agenda

Tuesday, October 11 - Evening Arrival and Registration

Wednesday, October 12 – Ballrooms 2 and 3

0800-0815 Opening and Welcome from Co-chairs:

Gunnar B.J. Andersson, MD, PhD

The Ronald L. DeWald, MD Professor and
Chairman Emeritus
Department of Orthopaedic Surgery
Rush University Medical Center
Chicago, IL

Steve M. Gnatz, MD, MHA

Professor
Medical Director, Physical Medicine & Rehabilitation
Department of Orthopaedics & Rehabilitation
Loyola University Medical Center
Maywood, IL

David S. Pisetsky, MD, PhD

Professor of Medicine and Immunology
Duke University Medical Center
Chief of Rheumatology
Durham VA Medical Center
Durham, NC

0815-0900 KEYNOTE SPEAKER: *Value in Healthcare*

E. Andrew Balas, MD, PhD

Dean and Professor
Georgia Health Sciences University
Augusta, GA

0900-1000 How Do We **Define** Value in Musculoskeletal Care?

Session Chair:

Gunnar B.J. Andersson, MD, PhD

The Ronald L. DeWald, MD Professor and
Chairman Emeritus
Department of Orthopaedic Surgery
Rush University Medical Center
Chicago, IL

Panelists:

Debra R. Lappin, JD

Senior Vice President
B&D Consulting
Washington, DC
Patient Representative

Mary K. Crow, MD

Physician-in-Chief
Chair, Rheumatology
Hospital for Special Surgery
New York, NY
Professional Organization

Allan M. Korn, MD, FACP

Senior Vice President, Office of Clinical Affairs
and Chief Medical Officer
Blue Cross and Blue Shield Association
Chicago, IL
Commercial Insurance

Michael T. Rapp, MD, JD, FACEP

Office of Clinical Standards and Quality
Centers for Medicare & Medicaid Services
U.S. Department of Health and Human Services
Baltimore, MD
Centers for Medicare & Medicaid Services

Jean R. Slutsky, PA, MSPH

Director
Center for Outcomes and Evidence (COE)
Agency for Healthcare Research and Quality (AHRQ)
U.S. Department of Health and Human Services
Rockville, MD
Agency for Healthcare Research and Quality

Sherine E. Gabriel, MD

Professor of Epidemiology and of Medicine, Department of
Rheumatology
Health Sciences Research
Mayo Clinic
Rochester, MN
Role of population-based health research in defining value

1000-1030 Panel Discussion

1030-1100 Refreshment Break

1100-1230 How Do We **Measure** Value in Musculoskeletal Care?

Session Chair:

Steve M. Gnatz, MD, MHA

Professor
Medical Director, Physical Medicine & Rehabilitation
Department of Orthopaedics & Rehabilitation
Loyola University Medical Center
Maywood, IL
Rehabilitation Outcomes

Panelists:

Sigurd Berven, MD

Associate Professor in Residence
Director of Spine Fellowship and Resident Education Program
Department of Orthopaedic Surgery
University of California, San Francisco
San Francisco, CA
Clinical Outcome Measures

Vibeke Strand, MD, FACP, FACR

Biopharmaceutical Consultant
Clinical Professor Adjunct
Division of Rheumatology/Immunology
Stanford University
Portola Valley, VA
Clinical Outcome Measures

Anna N. A. Tosteson, ScD

Professor of Medicine, of Community and Family Medicine and
of The Dartmouth Institute
Director, Multidisciplinary Clinical Research Center in
Musculoskeletal Diseases
Director, The Dartmouth Institute's Comparative Effectiveness
Research Program
Dartmouth Medical School
Lebanon, NH
Economic Outcome Measures

Edward H. Yelin, PhD, MCP

Professor of Medicine and Health Policy
University of California, San Francisco
San Francisco, CA
Population Health Measures

Amye L. Leong, MBA

President and CEO
Healthy Motivation
Santa Barbara, CA
Patient Goals

Matthew Liang, MD, MPH

Professor of Medicine, Harvard Medical School
Professor of Health Policy and Management, Harvard School of
Public Health
Study Director, VA Cooperative Studies Program
Department of Rheumatology
Brigham & Women's Hospital
Boston, MA
Registries

1230-1300 Panel Discussion

Speakers from Session 2 respond to specific questions.

Q1. How do the health care stakeholders approach the value proposition?

Q2. Should value drive the health care system?

Q3. Can we agree on value measures?

Q4. How do we advocate for the value of musculoskeletal care (mortality vs. quality of life)?

1300-1400 Lunch – *Executive, Sagamore and Ashlawn Rooms*

Matthew Liang, MD, MPH

Professor of Medicine, Harvard Medical School
Professor of Health Policy and Management, Harvard School of
Public Health
Study Director, VA Cooperative Studies Program
Department of Rheumatology
Brigham & Women's Hospital
Boston, MA
Consensus Building

1400-1500 What is the **role of industry** in providing value in musculoskeletal care?

Session Chair:

David S. Pisetsky, MD, PhD

Professor of Medicine and Immunology
Duke University Medical Center
Chief of Rheumatology
Durham VA Medical Center
Durham, NC

Panelists:

Greg Keenan, MD

Vice President, Medical Affairs
Human Genome Sciences
Rockville, MD

Shamiram Feinglass, MD, MPH

Vice President, Global Medical Affairs
Zimmer Inc., representing the
Advanced Medical Technology Association (AdvaMed)
Warsaw, IN

Janet Woodcock, MD

Director, Center for Drug Evaluation and Research
U.S. Food and Drug Administration
Silver Spring, MD

1500-1600 Report and Discussion on Phase I Study – Defining the Value of Orthopaedic Surgery

Panelists:

William Martin, III, MD

Social & Economic Value of Orthopaedic Surgery Project Team
American Academy of Orthopaedic Surgeons
Washington, DC

William Robb, III, MD

Social & Economic Value of Orthopaedic Surgery Project Team
American Academy of Orthopaedic Surgeons
Rosemont, IL

Lane Koenig, PhD

President
KNG Health Consulting, LLC
Rockville, MD

1600-1630 Introduction to Work Groups

1630-1730 Disease-Specific Work Groups

- 1) Arthritis and Joint Replacement – *Ballroom 1*
- 2) Bone Disease – *Hermitage Room*
- 3) Spine, including Deformity – *Madison Room*
- 4) Injury and Trauma – *Ballroom 2 & 3*

1730-1830 Interdisciplinary Work Groups

1. Definition Issues – *Ballroom 1*
2. Measurement Issues – *Hermitage Room*
3. Advocacy Issues – *Madison Room*
4. Role of Professional Organizations – *Ballroom 2 & 3*

1900

Dinner - *Atrium Room*

Guest of Honor:

Stephen I. Katz, MD, PhD

Director

National Institute of Arthritis and Musculoskeletal and

Skin Diseases (NIAMS)

National Institutes of Health (NIH)

Thursday, October 13

0800-0900 Presentations from the work groups

0900-1100 Construction of a Consensus Statement

1100 Presentation of the Consensus Statement

1200-1330 **Congressional Luncheon Briefing** - *325 Senate Russell Office Building*

The Value of Musculoskeletal Care

America's War Heroes:

Impact of Musculoskeletal Injury and Trauma

Speakers:

David Borenstein, MD

President, American College of Rheumatology

Mike Jackson

Retired Marine, Catoosa, OK

Severe early onset osteoarthritis

2012 Arthritis Foundation Walk Honoree

Barbara Springer, PT, PhD

Former Chief of Physical Therapy Service,

Walter Reed Army Medical Center and National Naval Medical

Center

Kimberly Templeton, MD

President, U.S. Bone and Joint Initiative,

Orthopaedic Surgeon, University of Kansas Medical Center

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Co-Chair Biographies most effective care

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stakeholder interests

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increasing prevention



Gunnar B. J. Andersson, MD, PhD

Professor and Chairman Emeritus
Department of Orthopedic Surgery
Rush University Medical Center
Chicago, IL

Dr. Andersson is the The Ronald L. DeWald, M.D., Professor and Chairman Emeritus of the Department of Orthopedic Surgery at Rush University Medical Center, Chicago, Illinois. He was Chairman of the Department of Orthopedic Surgery from 1994 to 2008. He received his M.D. from the University of Göteborg, Sweden in 1967; did his residency at Sahlgren University Hospital and obtained a Ph.D. in Medical Science at the University of Göteborg in 1974. After a fellowship at the London Hospital he joined the faculty at the University of Göteborg for ten years. In 1985 he moved to the United States and Rush University Medical Center as Professor of Orthopedic Surgery. His clinical area of interest is spine while his research interests are disc degeneration, epidemiology and occupational biomechanics. He is currently funded by the National Institutes of Health for a Program Project on Disc Degeneration. He is a past President, Orthopaedic Research Society, the International Society for the Study of the Lumbar Spine and the American Academy of Disability Evaluating Physicians. He has been a council member of the National Institute of Arthritis and Musculoskeletal and Skin Diseases at NIH, Chairman of the Research Committee at the American Academy of Orthopaedic Surgeons and a member of three Institute of Medicine committees. He is a Fellow of the American Institute for Medical and Biological Engineering. Dr. Andersson has received many awards and honors. He was the second recipient of the Muybridge Medal from the International Society of Biomechanics, third recipient the ISSLS Stryker Spine Lifetime Achievement Award from the International Society for the Study of the Lumbar Spine, the Kappa Delta Award from the AAOS/ORS, the Freedom of Movement Award from the Arthritis Foundation and a recipient of the Trustee Medal from Rush University Medical Center. He has been named Best Doctor and Chicago Top Physician for several years. He is a member of 15 Editorial Boards, a Deputy Editor for Spine, Editor-in-Chief of Contemporary Spine Surgery and an Associate Editor of Clinical Biomechanics. He is author of more than 300 original publications, 160 books and book chapters and 460 abstracts.



Steve M. Gnatz, MD, MHA

Professor
Medical Director, Physical Medicine &
Rehabilitation
Department of Orthopaedics &
Rehabilitation
Loyola University Medical Center
Maywood, IL

Dr. Gnatz is a Professor in the department of Orthopaedic Surgery and Rehabilitation at Loyola University Medical Center in Maywood, Illinois. There he is also Section Chief of Physical Medicine and Rehabilitation and Medical Director of the Loyola University Hospital inpatient rehabilitation unit.

Dr. Gnatz joined Loyola in 2004 after serving as Medical Director at Marianjoy Rehabilitation Hospital in Wheaton, Illinois and the Howard A. Rusk Rehabilitation Center in Columbia, Missouri. He previously held the academic position of Professor and Chair of Clinical Physical Medicine and Rehabilitation (PM&R) at the University of Missouri-Columbia.

He received his medical degree from the University of Illinois in 1984 and completed his residency in PM&R at Baylor College of Medicine in Houston, Texas, in 1987. In 1996, he received a master's degree in health administration (MHA) from the University of Missouri. Clinically, he specializes in musculoskeletal medicine with a strong interest and expertise in cost-effective practice in the area of PM&R.

He is very active in organized medicine and is a Past President of the American Academy of Physical Medicine and Rehabilitation.



David S. Pisetsky, MD, PhD
Professor of Medicine and
Immunology
Duke University Medical Center
Chief of Rheumatology
Durham VA Medical Center
Durham, NC

Dr. Pisetsky is Professor of Medicine and Immunology at the Duke University Medical Center. He received his B.A. from Harvard College in 1967 and his M.D. and Ph.D. from the Albert Einstein College of Medicine 1973. After house staff training at the Yale-New Haven Hospital, he was a Clinical Associate in the Immunology Branch of the National Cancer Institute. He joined the Duke faculty in 1978 as an Assistant Professor and Chief of Rheumatology at the Durham VA Hospital, and established a program of basic and clinical research in the pathogenesis of the rheumatic diseases. Throughout his career at Duke, Dr. Pisetsky has investigated the mechanisms of autoimmunity in systemic lupus erythematosus, focusing on the immunological properties of nuclear macromolecules. These studies led Dr. Pisetsky to the discovery of the mitogenic activity of bacterial DNA. More recently, Dr. Pisetsky has been studying the role of alarmins in innate immunity, the mechanisms of inflammation in rheumatoid arthritis and the role of early treatment in inflammatory arthritis. Dr. Pisetsky has published over 300 papers and chapters. He has served on many editorial boards and, from 2000-2005, he was the Editor of Arthritis and Rheumatism. Currently, he is the Editor of The Rheumatologist, a publication of the American College of Rheumatology. In 2001, Dr. Pisetsky received the Lee C. Howley Award of the Arthritis Foundation in recognition of his studies on the immune response to DNA.

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Speaker Biographies

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E. Andrew Balas MD, PhD
Dean and Professor
Georgia Health Sciences
University
Augusta, GA

Dr. Balas' international policy experience and public health interests include the transfer of research to practice, the role of new technologies in meeting public needs, surveillance and risk factor studies, and assessment of innovative interventions such as information and bio-technologies. The evidence research conducted by Dr. Balas has focused on empowering people through informing them. His multidisciplinary projects have identified the effective components of numerous information interventions and advanced the computerization of essential health information, particularly telecare services, patient education, preventive care prompts, and feedback to health professionals. His studies also furthered the controlled testing and cost analyses of emerging health information technologies. His credentials include over 90 peer-reviewed scientific articles in addition to various textbooks and invited papers. He has published reviews and editorials in the *Journal of the American Medical Association (JAMA)*, *British Medical Journal*, *Archives of Internal Medicine*, *Journal of the American Medical Informatics Association*, *Healthcare Financial Management*, *Pediatric Annals*," and other periodicals. During the last ten years, he has been responsible for more than eight million dollars of externally funded research as principal investigator/project director.



Sigurd Berven, MD
Associate Professor in Residence
Department, Orthopaedic Surgery
University of California, San Francisco
San Francisco, CA

Dr. Berven studied Human Biology as an undergraduate at Stanford University. He was a graduate student at Oxford University, earning a degree in Philosophy, Politics, and Economics. He received his Doctorate in Medicine from Harvard Medical School, had further training in Pediatric Orthopaedic Surgery as Chief Resident at The Boston Children's Hospital, and graduated from the Harvard Combined Orthopaedic Residency Program. After completion of his residency, he

had further clinical training in spine surgery as a clinical fellow at the University of California, San Francisco. Dr. Berven is the director of resident education and the clinical fellowship in Spine Surgery at UCSF. He has a strong clinical interest in pediatric and adult deformity, degenerative conditions of the spine, spinal tumors, and spinal trauma. His research in basic science includes studies of the molecular biology of intervertebral disc degeneration, and the cellular biology of disc regeneration. His clinical research interests include assessment of clinical outcomes in spinal surgery - notably assessments of perioperative care pathways - and he has worked closely with the hospitalists at UCSF in modifying perioperative pathways in spine surgery. He has established a database for pre-operative and post-operative general health status and disease-specific assessments for all patients undergoing spine surgery.

Dr. Berven's outcomes work has emphasized change in health-related quality of life, and the value of healthcare interventions. He has studied access to healthcare in populations including Afghan refugees in Pakistan, NHS patients with osteoarthritis in the UK, and patients with degenerative spinal conditions in the US.

Dr. Berven is a frequent speaker at orthopaedic conferences and has published more than 100 articles in peer-reviewed orthopaedic journals. He has also authored chapters in several surgical textbooks on adult and pediatric spinal conditions and treatments.



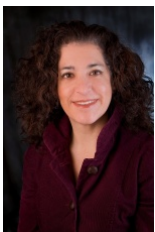
Mary K. Crow, MD
Physician-in-Chief
Chair, Rheumatology
Hospital for Special Surgery
New York, NY

Dr. Crow is Physician-in-Chief and Chair of the Department of Medicine at Hospital for Special Surgery, Professor of Medicine and Chief of the Rheumatology Division at Weill Cornell Medical College, and Professor of Immunology in its Graduate School of Medical Sciences. She holds the Joseph P. Routh Endowed Chair in Medicine and is Senior Scientist, Co-Director of the Mary Kirkland Center for Lupus Research, and Director of the Autoimmunity and Inflammation Program in the Research Division of the Hospital for Special Surgery. Dr. Crow received her M.D. at Cornell, Internal

Medicine and Rheumatology subspecialty training at New York Hospital, and post-doctoral research training at Rockefeller University in the laboratory of Dr. Henry Kunkel.

Dr. Crow's research has focused on the induction and regulation of human autoimmune diseases. She was among the first to characterize the functional properties of human dendritic cells and has studied self-reactive T cells in the prototype systemic autoimmune diseases, systemic lupus erythematosus and rheumatoid arthritis. She continues to investigate the underlying triggers of autoimmune disease and the cellular and cytokine mediators of immune system activation and inflammation in those disorders. She has been a leader in the identification of the central role of type I interferon in the pathogenesis of systemic autoimmune diseases.

Dr. Crow has served on the Medical and Scientific Committee of the Arthritis Foundation, on the S.L.E. Foundation's Medical Advisory Committee, and is currently Chair of the Scientific Advisory Board of the Alliance for Lupus Research. She is a past president of the American College of Rheumatology and the Henry Kunkel Society and was named an "Arthritis Hero" by the Arthritis Foundation in 2001.



Shamiram R. Feinglass, MD, MPH
Vice President, Global Medical Affairs
Zimmer Inc., representing the
Advanced Medical Technology
Association (AdvaMed)
Warsaw, IN

Dr. Feinglass a native San Franciscan and former Commander in the Commissioned Corps of the US Public Health Service is a board certified preventionist with experience at the national health policy level. She is a graduate of Smith College and the Emory Schools of Medicine and Public Health and completed an Internal Medicine Residency at Oregon Health Sciences University, a Preventive Medicine Residency at Emory School of Medicine, and the Robert Wood Johnson Clinical Scholars Program at the University of Washington. Dr. Feinglass has over 15 years of legislative and regulatory experience and is involved in numerous national and international health policy activities, including work with the International

Consortium of Orthopedic Registries, (ICOR), being a member of the Medicare Evidence Development and Coverage Analysis Committee (MedCAC), and AdvaMed. A former medical officer with CMS (Medicare), she is currently Vice President for Global Medical and Regulatory Affairs at Zimmer, Inc. Dr. Feinglass is responsible for global leadership in the development of strategy and execution of all corporate programs in Clinical Affairs, Market Access (Health Economics and Reimbursement), and Regulatory Affairs. Her responsibilities are inclusive of all Zimmer businesses including reconstructive, spine, dental, trauma, biologics and surgical products.



Sherine E. Gabriel, MD, MSc
Professor of Epidemiology and of
Medicine Department of
Rheumatology
Health Sciences Research
Mayo Clinic
Rochester, MN

Dr. Gabriel is Professor of Medicine (Rheumatology) & Professor of Epidemiology, and the William J. and Charles H. Mayo Endowed Professor. She is currently Co-Principal Investigator and Director of Education, Center for Clinical & Translational Sciences (CTSA); and Medical Director for Strategic Alliances & Business Development at Mayo Clinic. She is a Past President of the American College of Rheumatology.

Dr. Gabriel's research, which is largely NIH funded, has resulted in more than 350 peer-reviewed scientific publications addressing the risks, costs, determinants, and outcomes of the rheumatic diseases [H index = 44]. She has received numerous research awards in recognition of these contributions.

On January 21, 2011, Dr. Gabriel was appointed by the U.S. General Accountability Office to the Methodology Committee of the Patient Centered Outcomes Research Institute (PCORI) and, soon after, was, appointed as its first chair. PCORI was created by the U.S. Patient Protection and Affordable Care Act of 2010 as a non-profit, non-governmental organization to help patients, clinicians, purchasers, policy makers and others make better informed health decisions by carrying out research that provides high quality, relevant evidence about interventions and strategies to prevent, diagnose, treat and monitor health conditions.

Dr. Gabriel earned a Doctor of Medicine degree, with distinction, from the University of Saskatchewan, Canada, completed Internal Medicine Residency and Rheumatology fellowship at Mayo Graduate School of Medicine and a Master of Science in Clinical Epidemiology from McMaster University. She is certified by the American Board of Internal Medicine in Internal Medicine and in Rheumatology.



Greg Keenan, MD
Vice President, Medical Affairs
Human Genome Sciences
Rockville, MD

Dr. Keenan joined HGS in June 2010 as Vice President, Medical Affairs. Prior to joining HGS, Dr. Keenan spent over 10 years with Centocor Ortho Biotech, mostly recently as Leader, Worldwide Medical Affairs, Immunology Research. In that role, he oversaw the teams responsible for phase 4 trials and risk management safety research initiatives associated with the company's immunological compounds. Previously, Dr. Keenan was an assistant professor of medicine and pediatrics at the University of Pennsylvania, with appointments in the division of rheumatology at the Hospital of the University of Pennsylvania and the section of pediatric rheumatology at the Children's Hospital of Philadelphia. Dr. Keenan holds a B.A. degree from Colby College and an M.D. from Albany Medical College. He received residency training in internal medicine and pediatrics at the USC Medical Center and completed his fellowships in pediatric and adult rheumatology at the University of Pennsylvania. Dr. Keenan is certified by the American Board of Internal Medicine and the American Board of Pediatrics, with subspecialties in rheumatology and pediatric rheumatology. He holds memberships in the American Academy of Pediatrics and the American College of Rheumatology. Dr. Keenan is a Board Member of the Arthritis Foundation, South Eastern Pennsylvania.



Lane Koenig, PhD
President
KNG Health Consulting, LLC
Rockville, MD

Dr. Koenig, President of KNG Health Consulting, LLC, is a healthcare economist with experience in the public and private sectors. He specializes in conducting policy and data-driven analyses to study a broad range of health care issues, including reimbursement policy, provider efficiency, health care quality, spending growth, and the costs and benefits of medical interventions. Dr. Koenig founded KNG Health Consulting in 2007. At KNG Health, his work has primarily focused on the development and evaluation of payment and related policies for hospitals and physicians, including provisions under health care reform. Prior to starting KNG Health, Dr. Koenig was the chief economist in the Office of Policy at the Centers for Medicare and Medicaid Services (CMS). At CMS, he analyzed drug prices and beneficiary savings under the Medicare Part D program, led development of a model to assess the costs and impact on beneficiaries of alternative CMS policies, and frequently briefed CMS leadership. Dr. Koenig was a Senior Scientist at The Lewin Group in the Health Care Finance practice. Dr. Koenig graduated with Honors from the University of Florida, Gainesville and earned his PhD in Economics from the University of Maryland, College Park.



Allan M. Korn, MD, FACP
Senior Vice President, Office of Clinical
Affairs & Chief Medical Officer
Blue Cross and Blue Shield Association
Chicago, IL

Dr. Korn is Senior Vice President and Chief Medical Officer for Clinical Affairs for the Blue Cross and Blue Shield Association (BCBSA), a national federation of 39 independent, community-based and locally operated Blue Cross and Blue Shield companies. The Blue System is the nation's largest health insurer covering nearly 100 million people.

Dr. Korn serves as Medical Director for BCBSA and oversees the Technology Evaluation Center (TEC), an independent, applied health service research organization that uses an

evidence-based methodology for the assessment of clinical technologies. He also represents BCBSA with governmental agencies, regulatory bodies and accrediting entities, and oversees the National Council of Physician Executives made up of senior BCBS Plan physicians that advise the Association.

Before joining BCBSA, Dr. Korn served as Vice President and Chief Medical Officer for Blue Cross and Blue Shield of Illinois.

Dr. Korn received Bachelor of Science and Medical Degrees from Tufts University. He completed his internship and internal medicine residency at Chicago Wesley Memorial Hospital and at the Mayo Clinic.



Debra R. Lappin, JD
Senior Vice President
B&D Consulting
Washington, DC

Debra Lappin is recognized across government, academic and nonprofit sectors as a leading strategist in public health and science policy. She consults on innovative public-private partnerships, global consortia and other strategic alliances among academic research institutions, voluntary health agencies, government and industry. Calling upon her experiences as former national chair of the Arthritis Foundation, Debra is a recognized national spokesperson on public engagement in the nation's public health and scientific enterprise.

Debra's practice focuses on the changing roles of academia research institutions and the increasing influence of venture philanthropic patient organizations in accelerating translational research. She is recognized for her leadership of major science policy campaigns calling for public access to scientific communications and genetic non-discrimination. Drawing upon her understanding of health agency trends, law, ethics and practical business challenges, Debra advises on the development of a broad range of emerging, complex tools to enable translation, such as disease registries, large integrated databases, bio-specimen repositories and cross-institution affiliations, to share data.

Debra serves or has served as an advisor to the leading agencies in public health, including

the Centers for Disease Control and Prevention and the National Institutes of Health. She has participated on a number of committees at the National Academy of Sciences, including the Committee on the Organizational Structure of the NIH which led to a number of directions incorporated in the 2006 NIH Reform Act. Debra is President of the Council for American Medical Innovation, a member of the Board of Research! America and an adjunct professor at the University of Colorado Health Sciences Center.



Amye L. Leong MBA
President and CEO
Healthy Motivation
Santa Barbara, CA

Amye Leong is an internationally recognized patient advocate, speaker, author and educator. She is President/CEO of Healthy Motivation, a health education/advocacy consulting firm in Santa Barbara, California and Paris FRANCE. Clients include governments, industry and non-government organizations in 18 countries who seek expertise in patient-centered care, patient advocacy and patient advisory programs, strategic planning, group facilitation, marketing to patients, and conflict resolution. Diagnosed with rheumatoid arthritis at age 18 and later with Sjogren's syndrome and osteoporosis, she became wheelchair-bound within 6 years. After 16 surgeries and 12 joint replacements, she developed America's largest network of young adult arthritis education/advocacy programs, and became a respected medical and motivational speaker, advocate and facilitator.

Ms. Leong was honored at the White House by President G.W. Bush with the 2001 President's Service Award, America's highest honor for community service. The Arthritis Foundation named Ms. Leong one of its America's Fifty Heroes and awarded her its highest honor, the Harding Award. As a Community Hero, she carried the Olympic Torch for the 1996 Olympic Games. She was appointed to the NIAMS Advisory Council and chaired the Surgeon General's National Council on Self-Help and Public Health under C. Everett Koop. She served as International Spokesperson for the United Nations- endorsed Bone and Joint Decade from 2000-2010. She is the author of Get a Grip: A Take Charge Approach to Arthritis (2002), its Spanish translation,

SUPÉRATE! (2004), and The Complete Idiot's Guide to Arthritis (2009) along with other journal articles.

She currently serves on the NIH Director's Council of Public Representatives and on the Editorial Board of the International Journal on Self-Help and Self Care. She is also Spokesperson for The Rheumatology Network, an arthritis patient education channel in rheumatology office waiting rooms. She continues to travel the world for the Bone and Joint Decade motivating people affected by chronic disorders to take charge of their health and well-being, and facilitates leaders of health professional societies, patient advocacy groups, industry, academic and research institutions, and governments to work together to improve musculoskeletal care. She earned a BA in Communications from the University of California and MBA from Purdue University.



Matthew H. Liang, MD, MPH, FACP, FACR
Professor of Medicine, Harvard Medical School
Professor of Health Policy and Management,
Harvard School of Public Health
Study Director, VA Cooperative Studies Program
Department of Rheumatology
Brigham & Women's Hospital
Boston, MA

Dr. Liang is Professor of Medicine at Harvard Medical School and Professor of Health Policy and Management at Harvard School of Public Health. He is a graduate of Johns Hopkins University in philosophy and chemistry, Harvard Medical School, and the Harvard School of Public Health where he studied tropical public health and epidemiology.

He is Director of Special Projects of the Robert B. Brigham Arthritis and Musculoskeletal Diseases Clinical Research Center which he founded in 1977. He is a founding faculty member of the Clinical Effectiveness Program at the Harvard School of Public Health and a Founding member of the Brigham's Primary Care program. Dr Liang is a Study Director in the Veterans Administration Cooperative Studies Program, the largest and oldest organization for the conduct of multicenter studies.

Dr. Liang has been named one of the Best Doctors in America since 1996. He is a recipient of the Lawrence Poole Prize in rehabilitation from the University of Edinburgh, the Lee C. Howley Sr Prize for

Research in Arthritis, the American College of Rheumatology Award of Distinction for Clinical Research, the Kirkland Scholar Award, the Molson Foundation Scholar Award, the Wallace Epstein Award for Training in Clinical Research, and is a Master of the American College of Rheumatology. The Matthew H. Liang Distinguished Professorship in Rheumatology and Population Health was established in his honor in 2010.

Dr. Liang has mentored over 50 clinician scientists from 7 countries and many have gone on to become academic leaders. They have been recipients of 2 ACR Senior Fellow Awards, the 2001, 2006, and 2007 ACR Henry Kunkel Young Investigator Awards, the Edward Dubois Award in 1988 and in 2001, Outstanding Clinical Scientist (Canada), Outstanding Young Investigator (American Society for Bone and Mineral Research); Outstanding Young Investigator (American Nutrition Society), the 2006 Pfizer Prize, 2007 Freedom of Movement Award, 2008 APLAR Distinguished Clinical Scientist, Jean and Linette Warnery Prize, the Hirzel-Callegari Prize, American College of Rheumatology Clinical Scholar Educator Award, the Lupus Foundation of America 2009 Mary Betty Stevens Young Investigator Prize, and the 2009 DSM Nutrition Award among others.

He has been a consultant to the Food and Drug Administration, the Social Security Administration, the Institute of Medicine, the National Institutes of Health, the Shriners Hospital System, the Alliance for Lupus Research, the Arthritis Research Centre of Canada, the Arthritis Foundation, the Hong Kong Research Grants Council, and the Canadian Institute for Health Research. He is on the Boards of Beacon Hill Village, South Africa Partners, the Lupus Clinical Trials Consortium, The Rx Foundation, and the Global Council of the Cambridge School at Weston.

His research includes basic methodologic work in clinimetrics and clinical trials, the epidemiology of rheumatic disease and disability, outcomes research, the identification of modifiable risk factors in high risk and disadvantaged populations, and evaluating the internet for public health applications and point of care studies for quality improvement using the electronic medical record. He has authored more than 300 publications.

In arthritis and musculoskeletal diseases he was the first to use decision analysis and cost-benefit/cost-effectiveness analysis and has applied these tools to evaluating diagnostic and management strategies for low back pain, total joint arthroplasty, the Lyme vaccine and disease modifying agents in rheumatoid arthritis.

He led efforts to develop the first psychometrically sound and standardized patient-centered outcome measures for the North American Spine Society, the American Academy of Orthopaedic Surgeons, the Pediatric Orthopaedic Society of North America, the American Burn Association, Shriners' Hospitals and in systemic lupus erythematosus, ankylosing spondylitis and incorporating these in registries.



Michael T. Rapp, MD, JD, FACEP
Office of Clinical Standards and Quality
Department of Health & Human
Services
Centers for Medicare & Medicaid
Services
Baltimore, MD

Dr. Rapp is director of the Quality Measurement and Health Assessment Group, Office of Clinical Standards and Quality, at the Centers for Medicare and Medicaid Services, based at its headquarters in Baltimore, MD. The group is responsible for evaluating and supporting implementation of quality measurement systems to assess healthcare quality in a broad range of settings. These include hospitals, doctor offices, nursing homes, home health agencies, dialysis centers. The group actively works with many stakeholders to promote widespread participation in the quality measurement development and consensus process. Dr. Rapp's major leadership responsibilities include the Physician Quality Reporting Initiative, the Electronic Prescribing Reporting Program, Hospital Compare website measures content, measures design of the Hospital Value Based Purchasing Plan, the development of the CARE Post-Acute Assessment Instrument, the QIO 9th Statement of Work Care Transitions Theme, the Better Quality Initiative for Medicare Beneficiaries Pilot Project, the calculation of quality measurement results using Medicare data for Chartered Value Exchanges, and other aspects of CMS's efforts to promote Value Driven Healthcare.

Dr. Rapp is an emergency physician and was in active clinical practice until taking his position at CMS, including most recently as a member of the George Washington University Medical Faculty Associates. For 18 years he served as Chairman and Medical Director of the Department of Emergency Medicine at Arlington Hospital (now Virginia Hospital Center.) He has served on the board of directors and as president of the American College of Emergency Physicians. Early in his career, Dr. Rapp practiced law as a defense attorney representing hospitals and physicians in medical malpractice suits. His public service activities include approximately four years as Chairman of the Department of HHS Practicing Physicians Advisory Council.

Dr. Rapp received his M.D. degree from the Northwestern University Feinberg School of Medicine, and his J.D. degree, with highest honors, from the George Washington University School of Law. He is board certified by the American Board of Emergency Medicine, and served as an oral examiner for the Board. He is a Clinical Professor of Emergency Medicine at the George Washington University of Medicine and Health Sciences. He is a fellow of the American College of Emergency Physicians, and a member of the Medical Society of Virginia, the American Medical Association, and the American Health Lawyers Association. Dr. Rapp is married to Carolyn Freas Rapp, who is a writer. They are the parents of three adult children.



William Robb, III, MD
Social & Economic Value of Orthopaedic
Care Project Team
American Academy of Orthopaedic
Surgeons
Rosemont, IL

Dr. Robb specializes in adult reconstructive knee surgery at Illinois Bone and Joint Institute (IBJI) in Glenview, Illinois and is currently Chairman of the Department Orthopaedic Surgery at NorthShore University HealthSystem. He recently served as President of American Association of Hip and Knee Surgeons (AAHKS) and as Chairman of the American Academy of Orthopaedic Surgeons (AAOS) Board of Specialty Societies (BOS). Dr. Robb currently serves as a member of the AAOS Value of Orthopaedic Care Project Team.



Jean R. Slutsky, PA, MSPH
Director
Center for Outcomes & Evidence (COE)
Agency for Healthcare Research and
Quality (AHRQ)
U.S. Department of Health and Human
Services
Rockville, MD

Dr. Slutsky has directed the Center for Outcomes and Evidence (COE), Agency for Healthcare Research and Quality (AHRQ) of the U.S. Department of Health and Human Services since June 2003. Prior to Ms. Slutsky's appointment as director of COE, she served as acting director of the Center for Practice and Technology Assessment at AHRQ. Ms. Slutsky oversees the Evidence-based Practice Center program; Technology Assessment Program; extramural and intramural research portfolios concerning translating research into practice, outcomes and effectiveness research, including pharmaceutical outcomes, and cost-effectiveness analyses; and the National Guideline, Quality Measures, and QualityTools Clearinghouses.

Prior to becoming acting director of the Center for Practice and Technology Assessment, Ms. Slutsky directed the development of the National Guideline Clearinghouse™ (NGC) Project. The NGC is an Internet-based repository (www.guideline.gov) for comparative information on evidence-based clinical practice guidelines. In addition, Ms. Slutsky served as project director of the U.S. Preventive Services Task Force, an internationally recognized panel of experts who make evidence-based recommendations on clinical preventive services. Ms. Slutsky is a member of the Executive Board of the Guidelines International Network.

Ms. Slutsky received her Bachelor of Science degree at the University of Iowa, a Masters of Science in Public Health (Health Policy and Administration) from the University of North Carolina at Chapel Hill, and trained as a Physician Assistant at the University of Southern California.



Vibeke Strand, MD, FACP, FACR
Biopharmaceutical Consultant
Clinical Professor Adjunct
Division of
Rheumatology/Immunology
Stanford University
Portola Valley, VA

Dr. Strand is Adjunct Clinical Professor in the Division of Immunology and Rheumatology at Stanford University School of Medicine and a consultant in clinical research and regulatory affairs to pharmaceutical and biotech companies. She has been a clinical rheumatologist for 30 years, as a clinical investigator, member of IRBs and directed clinical research at 3 pharmaceutical and biotech companies. Her professional interests include development of clinical trial methodology, planning regulatory strategy and clinical trials leading to approval of new agents for treatment of autoimmune diseases, including rheumatoid arthritis [RA], osteoarthritis [OA], fibromyalgia [FMS], gout and systemic lupus erythematosus [SLE].

Since 1991, Dr. Strand has led a consulting practice offering clinical research and regulatory strategy expertise. Her focus is to help translate basic research into rational design of randomized controlled trials, evaluate their results and defend approval of novel products to FDA and EMA. She has assisted in preparation of applications, briefing documents and data presentation for defense of NDA and BLA applications, including: Ganciclovir™ in CMV Retinitis, CD5 Plus™ in GvHD, Neoral™ in RA, Ontak™ in CTCL, Arava™ in RA, Celebrex™ in RA and OA, Remicade™ in RA, Kineret™ in RA, Humira™ in RA, Cimzia™ in RA, Actemra™ in RA, Savella™ in FMS, Supartz™ in OA, Krystexxa™ in gout and Benlysta™ in SLE and additional labeling claims for the above products.

Dr. Strand's commitment to promoting forums for the discussion of rational product development among industry, FDA and academia led to her establishing and co-chairing the bi-yearly "Innovative Therapies in Autoimmune Disease" meetings (1988–2007), serving as a member of the executive organizing committee of the international Outcomes in Rheumatology Clinical Trials (OMERACT 1-11) consensus conferences (1992–2012), co-chairing OMERACT 7 (2004) and upcoming 11 (2012) meetings. She helped found and co-chaired the Clinical

Immunology Society Spring Fellows School (2004–2008). She has been an invited speaker at FDA Arthritis Advisory Committee meetings discussing Guidance Documents for RA, OA, SLE, JRA, radiographic analyses in RA and pain (1996–2005). Since 2005 she has served as a member of the board of the Northern California chapter of the Arthritis Foundation and their Medical and Scientific Committee, and on the Board of Directors, Consortium of Rheumatology Researchers of North America: CORRONA (2002-2008) and currently, Scientific Advisory Board (2010–).

She has authored more than 235 original publications and reviews, 50 chapters, co-edited several books and multiple proceedings. She is a Fellow of the American College of Physicians (1982), a Fellow of the American College of Rheumatology (1986), serves on the editorial board of multiple journals, and is a member of the Cosmos Club (1994).



Anna N. A. Tosteson, ScD
Professor of Medicine, of Community and Family Medicine and The Dartmouth Institute
Director, Multidisciplinary Clinical Research Center in Musculoskeletal Diseases
Director, The Dartmouth Institute's Comparative Effectiveness Research Program
Dartmouth Medical School
Lebanon, NH

Dr. Tosteson is a Professor of Medicine, of Community and Family Medicine, and of The Dartmouth Institute at Dartmouth Medical School. She is Director for Dartmouth's Multidisciplinary Clinical Research Center in Musculoskeletal Diseases, and leads the Comparative Effectiveness Research Program at The Dartmouth Institute for Health Policy and Clinical Practice. She did her undergraduate training in statistics and biometry at Cornell University and her graduate studies in biostatistics and health decision science at Harvard University. Her research uses decision-analytic modeling, economic evaluation and preference-based measures of health-related quality of life to address clinical and health policy issues in osteoporosis/musculoskeletal diseases, cancer, and women's health. She is an active participant in national and international groups that focus on the comparative effectiveness and economic evaluation of both new and established health care technologies including the American College of Radiology Imaging Network. She currently leads the cost-effectiveness component for the Spine Patient Outcomes Research Trial, a large multicenter

study comparing spine surgery with non-operative care for common back and leg pain problems. Dr. Tosteson contributed to the Surgeon General's Report on osteoporosis and bone health and, as a member of the Physician Guide Committee for the National Osteoporosis Foundation, used economic evaluation to support clinical guideline development. She is a member and former board member of the Society for Medical Decision Making. She is an editorial board member for Osteoporosis International and for the American Journal of Medicine.



Janet Woodcock, MD
Director
Center for Drug Evaluation and Research
U.S. Food and Drug Administration
Silver Spring, MD

Dr. Woodcock is the director of the Center for Drug Evaluation and Research (CDER) at the Food and Drug Administration (FDA). The center makes sure that safe and effective drugs are available to improve the health of people in the United States.

Dr. Woodcock and her center:

- evaluate prescription and over-the-counter drugs before they can be sold and oversee their testing in clinical trials;
- provide health care professionals and patients the information they need to use medicines wisely;
- ensure that drugs, both brand-name and generic, work correctly and that their health benefits outweigh their known risks;
- take action against unapproved, contaminated, or fraudulent drugs that are marketed illegally.

"New drugs—and new uses for older drugs—save lives, reduce suffering, and improve the quality of life for millions of Americans," says Dr. Woodcock. "I am continually challenged to make sure that FDA's regulatory process remains the world's gold standard for drug approval and safety."

Dr. Woodcock has led many of FDA's drug initiatives. She introduced the concept of risk management in 2000 as a new approach to drug safety. Since 2002, she has led the "Pharmaceutical Quality for the 21st Century Initiative," FDA's highly successful effort to modernize drug manufacturing and its regulation. In 2004, she introduced FDA's "Critical Path" Initiative, which is designed to

move medical discoveries from the laboratory to consumers more efficiently.

Most recently, Dr. Woodcock launched the “Safety First” and “Safe Use” initiatives designed to improve drug safety management within and outside FDA, respectively.

Dr. Woodcock previously served as FDA’s deputy commissioner and chief medical officer. She also led CDER as director from 1994–2005. Prior to joining CDER, Dr. Woodcock oversaw approval of the first biotechnology-based treatments for multiple sclerosis and cystic fibrosis in her position as director of the Office of Therapeutics Research and Review in FDA’s Center for Biologics Evaluation and Research (CBER).

Dr. Woodcock received her medical degree from Northwestern University Medical School, and her undergraduate degree from Bucknell University. She has held teaching appointments at Pennsylvania State University and the University of California at San Francisco. She joined FDA in 1986.



Edward H. Yelin, PhD, MCP
Professor of Medicine & Health Policy
University of California, San Francisco
San Francisco, CA

Dr. Yelin is a Professor of Medicine and Health Policy at UCSF. His research focuses on the social and economic impacts of musculoskeletal conditions, the causes and consequences of work disability, and the effect of changes in the health care system on persons with severe rheumatic diseases. Dr. Yelin is the Principal Investigator of the Multidisciplinary Clinical Research Center in the Rheumatic Diseases and Director for Medical Effectiveness of the California Health Benefits Review Program. He has over 200 publications and has won numerous awards for his research. He is an elected member of the National Academy for Social Insurance.

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Stephen I. Katz, MD, PhD

Director
National Institute of Arthritis and Musculoskeletal
and Skin Diseases (NIAMS)
National Institutes of Health (NIH)
Bethesda, MD

Dr. Katz has been the Director of the National Institute of Arthritis and Musculoskeletal and Skin Diseases since August 1995 and is also a Senior Investigator in the Dermatology Branch of the National Cancer Institute. He was born in New York in 1941 and his early years were spent in the Washington, D.C., and Bethesda, Maryland areas. After attending the University of Maryland, where he graduated with honors, he graduated from the Tulane University Medical School with honors in 1966. He completed a medical internship at Los Angeles County Hospital and did his dermatology residency at the University of Miami Medical Center from 1967 to 1970. He served in the U.S. military at Walter Reed Army Medical Center from 1970 to 1972. From 1972 to 1974, Dr. Katz did a postdoctoral fellowship at the Royal College of Surgeons of England and obtained a Ph.D. degree in immunology from the University of London in 1974. He then became Senior Investigator in the Dermatology Branch of the National Cancer Institute and assumed the position of Acting Chief in 1977. In 1980, he became Chief of the Branch, a position he held until 2002. In 1989, Dr. Katz also assumed the position of Marion B. Sulzberger Professor of Dermatology at the Uniformed Services University of the Health Sciences in Bethesda, Maryland, a position that he held until 1995.

Dr. Katz has focused his studies on immunology and the skin. His research has demonstrated that skin is an important component of the immune system both in its normal function and as a target in immunologically-mediated disease. In addition to studying Langerhans cells and epidermally-derived cytokines, Dr. Katz and his colleagues have added considerable new knowledge about inherited and acquired blistering skin diseases.

Dr. Katz has trained a large number of outstanding immunodermatologists in the U.S., Japan, Korea, and Europe. Many of these individuals are now leading their own high-quality, independent research programs. He has served many professional societies in leadership positions including as a member of the Board of Directors and President of the Society for Investigative Dermatology, on the Board of the Association of Professors of Dermatology, as Secretary-General of the 18th World Congress of Dermatology in New York in 1992, as Secretary-Treasurer of the Clinical Immunology Society, and as President of both the International League of Dermatological Societies and the International Committee of Dermatology. Dr. Katz has also served on the editorial boards of a number of clinical and investigative dermatology journals, as well as several immunology journals. He has received many honors and awards, including the Master Dermatologist Award and the Sulzberger Lecture Award of the American Academy of Dermatology, the National Cancer Institute's Outstanding Mentor Award, the Harvey J. Bullock, Jr., EEO Award in recognition of his extraordinary leadership in scientific, programmatic, and administrative arenas, the Excellence in Leadership Award from the International Pemphigus Foundation, the "Change It" Champion Award from Parent Project Muscular Dystrophy, honorary membership in numerous international dermatological societies, and election into the Institute of Medicine of the National Academy of Sciences (USA). He has also received the Alfred Marchionini Gold Medal, the Lifetime Achievement Award of the American Skin Association, Doctor Honoris Causa Degrees from Semmelweis University in Budapest, Hungary, Ludwig Maximilian University in Munich, Germany, and the University of Athens in Greece. He also received the Rothman Award for distinguished service to investigative cutaneous medicine and the Kligman/Frost Award, both from the Society for Investigative Dermatology. Dr. Katz was the recipient of the 7th Alan Rabson Award for NCI Intramural Cancer Research in 2011. He also received the Paul G. Rogers Leadership Award from the National Osteoporosis Foundation in 2011. Dr. Katz has twice received the Meritorious Rank Award and has also received the Distinguished Executive Presidential Rank Award, the highest honor that can be bestowed upon a civil servant.

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David Borenstein, MD
President
American College of Rheumatology
Clinical Professor of Medicine
Division of Rheumatology
George Washington University
Medical Center
Washington, DC

Dr. Borenstein is the 74th President of the American College of Rheumatology. He graduated with an BA degree from Columbia University in 1969. He received his Doctor of Medicine, completed his internship and residency in internal medicine on The Osler Medicine Service and his fellowship in rheumatology at the Connective Tissue Division at The Johns Hopkins University School of Medicine and The Johns Hopkins Hospital from 1969 to 1978. Dr. Borenstein is board certified in internal medicine with sub-specialty certification in rheumatology. He is a Fellow of the American College of Rheumatology and the American College of Physicians. He is a member of Arthritis and Rheumatism Associates in Washington, DC.

He became an Assistant Professor of Medicine at The George Washington University Medicine Center in 1978. In 1989, he was promoted to Professor of Medicine. During this period he was Associate Director for education and research for the Division of Rheumatology. He became a Clinical Professor of Medicine on the voluntary faculty in 1997.

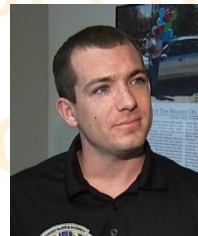
Dr. Borenstein has been active in a number of medical professional organizations. He is a member of the 250-physician International Society for the Study of the Lumbar Spine where he was chairman of the membership committee in 2003. He has also participated with activities of the American College of Physicians. He was chairman of the Credentials Committee for the District of Columbia Chapter in 2001 through 2004. He was designated a Laureate of the ACP Chapter in 2005. He was President of the Rheumatism Society of the District of Columbia in 1993.

Dr. Borenstein was the Vice President of the Metropolitan Washington Chapter of the Arthritis Foundation from 2006-2007. He has received the Henry Taylor Award in 2005 and The President's Award for Lifetime Service in 2008. In 2011, he was awarded the Marriott Lifetime Achievement Award.

Dr. Borenstein has been actively involved with activities of the ACR and the REF including the Government Affairs Committee and the Board of Directors from 2005 to 2011.

Dr. Borenstein is an author of *Low Back and Neck Pain: Comprehensive Diagnosis and Management*, 3rd Edition, a textbook on spinal disorders for physicians. He is also author of *Heal Your Back: Your Complete Prescription for Preventing, Treating, and Eliminating Back Pain*, a book written for the lay population.

Dr. Borenstein has earned the recognition and praise of the medical community by being named an outstanding specialist in rheumatology in *Washingtonian* magazine, *Washington Consumer's Checkbook*, *Best Doctors in America*, *Who's Who in Medicine and Health*, *Who's Who in America*, and *Who's Who in the World*.



Mike Jackson
Retired Marine
Severe early onset osteoarthritis
2012 Arthritis Foundation Walk Honoree
Catoosa, OK

Mr. Jackson joined the Marine Corps in April of 2006. He is reluctant to offer up hero stories, but when prodded admits that he did serve in Iraq. After nearly five years of active service and injuries while serving, Michael was diagnosed with severe OA in both shoulders, ending his military career. He received an honorable discharge as a result of "medical separation" and returned home for treatment at Walter Reed Army Hospital. When Michael got home, he contacted the Arthritis Foundation, in search of volunteer opportunities, and is the Team Recruitment Chair for the Tulsa Arthritis Walk.



Barbara Springer, PT, PhD
Former Chief of Physical Therapy Service
Walter Reed Army Medical Center and
National Naval Medical Center
Washington, DC

Dr. Springer is the National Director of Project HERO, Ride2Recovery, a non-profit organization that utilizes cycling as an extension of physical and psychological rehabilitation for our healing military

Service members and Veterans. She served over 24 years in the U.S. Army and retired out of the Office of The Surgeon General where she served as the Director of the Rehabilitation and Reintegration Division. She recommended policy and instituted Army-wide standards of care for rehabilitation and transition of wounded, ill and injured soldiers.

Before assuming that position in 2008, Dr. Springer was Chief, Integrated Physical Therapy (PT) Service where she served as leader to both Walter Reed Army Medical Center and the National Naval Medical Center in the Washington, DC Metro area. In this role, she ensured world-class rehabilitative care to thousands of wounded service members and other military beneficiaries, averaging over 7,000 visits each month. She was also responsible for conducting, tracking, and supervising clinical research projects; overseeing graduate education; supporting congressional projects; supporting amputee, traumatic brain injury, and spine centers; and planning for and executing PT Service integration for Base Realignment and Closure.

While serving in this position, Dr. Springer was also the White House PT Consultant, the North Atlantic Regional Medical Command PT Consultant, and a member of the Military Amputee Research Program Executive Committee.

Dr. Springer's other assignments include Chief of PT and Director of the Sports PT Residency at West Point, NY; Chief of PT at Schofield Barracks, HI; Chief of PT at Camp Casey, Korea; and PT at Ft Sill, OK. She earned a Ph.D. in Health Education from The University of Texas at Austin and is part of the Graduate Faculty in the Doctoral Program in Sports Medicine-Physical Therapy at Baylor University.

COL Springer (Ret) is board certified as both an Orthopedic and a Sports Physical Therapy Specialist. Her research interests lie in sports physical therapy, amputee rehabilitation, breast cancer and core stabilization. She has published in peer-reviewed journals and has presented numerous platform presentations at professional meetings.

COL Springer (Ret), her husband Steve, and their two children, Nick and Mike, live in Potomac, MD. They enjoy camping, hiking, and sporting activities.



Kimberly Templeton, MD

President, U.S. Bone and Joint Initiative
Professor of Orthopaedic Surgery
Department of Orthopaedic Surgery
University of Kansas School of Medicine
Kansas City, KS

Dr. Templeton has worked with the US Bone and Joint Decade, now USBJI, for the past several years. She initially was the first chair of the newly-created public education committee, helping to develop such programs as "Fit to a T" and "PB&J: Protect Your Bones and Joints". She then served on the USBJD/I Board of Directors, first as treasurer and now as President. Dr. Templeton is professor of orthopaedic surgery and health policy and management at the University of Kansas Medical Center in Kansas City. She has been the orthopaedic residency program director there for the past several years. She was also previously Chief of the orthopaedic section at the Kansas City VA Medical Center.

Dr. Templeton was the first McCann Professor of Women in Medicine and Science and a past-president of the Kansas Orthopaedic Society, Mid-Central States Orthopaedic Society, and the Ruth Jackson Orthopaedic Society. She has served on the Diversity Advisory Board of the American Academy of Orthopaedic Surgeons for the past several years, working on projects such as the culturally competent care educational DVD and accompanying book. She has recently completed a term on the AAOS Council for Research, Quality Assessment, and Technology. In 2008, Dr. Templeton was an invited participant in the Summit for a National Action Plan for Bone Health and has recently been appointed to the governance committee of the National Alliance for Bone Health. She currently works with the Commission on the Status of Women at the United Nations, is a member of the steering committee for the 2010 and 2011 National Summits on Arthritis and Musculoskeletal Health Disparities, serves on the boards of directors of the American Medical Women's Association and the American College of Women's Health Physicians, and is a committee member for the Council of Orthopaedic Residency Program Directors and the American Orthopaedic Association. Dr. Templeton was recently elected vice-president of the Kansas State Board of Healing Arts and is a past-President of the Medical Society of Johnson and Wyandotte Counties. Her research interests include women's health, medical education, and the treatment of osteosarcoma.

Work Group Assignments

Summit presenters have been asked to provide focused, high level presentations hitting the high points of their topic, and setting the tone for the ensuing Work Group discussions.

The purpose of the Work Groups is to provide the basis for 1) developing a Consensus Statement and; 2) formulating elements for an action plan. The action plan will identify gaps in knowledge; as well requirements for guidelines, outcome measures and evidence-based research that can support a value proposition for musculoskeletal care. These are the two desired outcomes of the Summit.

Work Group discussions have four components:

1. A definition of value in musculoskeletal care;
2. A statement of how to measure value in musculoskeletal care;
3. A section about advocacy issues; and
4. A model for the role of professional organizations.

While there are no specific presentations on advocacy and the role of professional organizations, these aspects flow directly from the value definition and our ability to measure value.

Work Groups by Disease-Specific Topics (4:30-5:30 p.m.)

For the first set of Work Groups, participants have been divided in to four subgroups by disease-specific topic. Each group will discuss the following: 1) definition issues; 2) measurement issues; 3) advocacy issues; and 4) role of professional organizations, as these issues pertain to their disease specific group. Each group should develop a prioritized list from the perspective of their organization or specialty on how value in musculoskeletal care can be defined and measured. This is the first deliverable of the Work Groups. Each group should also prepare a list of issues relevant for advocacy at the local, state and national level; these issues should include the role of professional organizations.

For the work groups to be most effective, attendees are encouraged to consider the points they would like listed as they prepare for the discussion, and to participate actively.

The four groups are:

1. Arthritis and Joint Replacement (Group 1)

This group will consider the broad range of inflammatory and degenerative joint diseases as well as diseases of the muscle, whether primary or secondary. This group will also consider joint replacement surgery.

2. Bone Disease (Group 2)

This group will consider diseases of the bone, primarily osteoporosis, although other primary diseases of the bone can be discussed. This group will consider strategies for prevention as well as treatment.

3. Spine, including Deformity (Group 3)

This group will focus on diseases of the back and spine and include consideration of low back pain. The group will also consider deformities of the back such as scoliosis.

4. Injury and Trauma (Group 4)

This group will consider the impact of injury and trauma on cartilage, bones and joints, including sports-related injury as well as motor vehicle accidents.

In discussions of the work groups, there are many areas of potential overlaps such as inflammatory back disease or the effects of osteoporosis on vertebral fractures. Furthermore, there are issues such as health disparities or the care of children that can fit into each of these different working groups. The work groups will necessarily have potentially broad scope but each group will have a major focus that can inform the discussions.

Speakers from the first session on defining value may use different definitions depending on their role in the healthcare system. The industry session may also provide additional input in this respect.

A key part of the program will concern the manner in which value in musculoskeletal care can be measured. Since some metrics are disease-specific, the work groups will consider the measurement of value for specific conditions as well as on the basis of the individual, group, and society.

Each work group has a Chair and a Scribe. It is the role of the Chair to make sure that all four issues are discussed in the time allotted and the role of the Scribe to summarize the conclusions of the session. Assignments are to be submitted at the end of the day.

Interdisciplinary Work Groups (5:30-6:30 p.m.)

The participants will now be re-divided into four interdisciplinary work groups for the purpose of discussing one topic only. The first work group (Group 5) will discuss definition issues; the second (Group 6) measurement issues; the third (Group 7) advocacy issues; and the fourth (Group 8) the role of professional organizations.

At the end of this session, the goal is to have a written statement on each topic that can be used as a basis for the consensus document to be further discussed on Thursday morning. The groups will also produce a listing of items that may not be included in the Consensus Statement, but should be included in the action plan framework. The Consensus Statement will necessarily be a high-level document.

Thursday Morning

In the first hour on Thursday, we will take the topics one by one, starting with definition issues. The Chair, Scribe or other group-selected spokesperson will present the written statement from the interdisciplinary work group on the topic in 15 minutes or less. The spokesperson may also expand on areas where there was controversy or extensive discussion. At the end of this presentation, she/he will ask for input from all participants since not everyone will have been part of the work group discussing this topic.

Next, we will have an exercise aimed at crafting a draft consensus statement. The participants will split into the groups from the previous day (Interdisciplinary Work Groups) and work with a moderator to choose key elements of the consensus statement. At the end of this discussion, we will have a draft of the Consensus Statement for distribution to the participants.

While the purpose of the activity on the second meeting day is not to dwell on wording or grammar, language is nevertheless important for a Consensus Statement. Rather, the purpose of this session will make sure that we have incorporated all major points and that we have a document that reflects a broad consensus. On the basis of the final group discussion, the Consensus Statement will then be revised in detail for meaning and clarity and distributed for final approval by the participants.

Following the Summit, it is hoped that you will then take the final version of the Consensus Statement and a report on the Summit to the Board of your organization for consideration. It is also hoped that the Summit will have provided a platform to enable you and your specialty organization to develop its own value proposition, and an opportunity for organizations with common interest to interact and collaborate on the development of needed guidelines and measures.

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Daniel Adair, MD
Memorial Medical Center

Romney C. Andersen, COL, MC, USA
Walter Reed National Military Medical Center
Musculoskeletal Summit Speaker

Gunnar B.J. Andersson, MD, PhD
Rush University Medical Center
Musculoskeletal Summit Co-Chair

Colin Baker, PhD
National Institute on Aging / National Institutes of Health

Nancy A. Baker, ScD, MPH, OTR/L
American Occupational Therapy Association

E. Andrew Balas, MD, PhD
Georgia Health Sciences University
Musculoskeletal Summit Speaker

John Barnes
American Physical Therapy Association

Robert L. Barrack, MD
Hip & Knee Societies

Judy Baumhauer, MD
American Orthopaedic Foot and Ankle Society

John Behzad, FACHE, CPA, CISA, MBA
The Johns Hopkins Hospitals

Anita Bemis-Dougherty, PT, DPT
American Physical Therapy Association
United States Bone and Joint Initiative – Board Member

Sigurd Berven, MD
University of California, San Francisco
Musculoskeletal Summit Speaker

Thomas M. Best, MD, PhD
American College of Sports Medicine
United States Bone and Joint Initiative – Board Member

Roberta Biegel
National Osteoporosis Foundation

David Borenstein, MD
American College of Rheumatology
Musculoskeletal Summit Speaker

Cate Brennan Lisak
National Athletic Trainers' Association

Verona Brewton
Zimmer, Inc.

Kevin L. Browne, PT
Harvard Vanguard

Susan Broy, MD
International Society for Clinical Densitometry

James Bryan, IV, MD
American Medical Society for Sports Medicine

Sean Bryan, MD
American Medical Society for Sports Medicine

Russell Burge
Eli Lilly and Company

Jarrett D. Cain, DPM
American College of Foot and Ankle Surgeons

Leigh F. Callahan, PhD
American College of Rheumatology Research and Education Foundation
United States Bone and Joint Initiative – Treasurer

Constance R. Chu, MD
University of Pittsburgh Medical Center

Garry Clark
Zimmer, Inc.

Linda Cook
United States Bone and Joint Initiative

Mary K. (Peggy) Crow, MD
Hospital for Special Surgery
Musculoskeletal Summit Speaker

Vincent DeBono, DC
National University Health System

David R. Dolbow
McGuire VA Medical Center, SCI Research

Mark Domyahn, MBA
Zimmer, Inc.

Paul Dougherty, DC
American Chiropractic Association
United States Bone and Joint Initiative – Board Member

Ryan Dunlay, MD
Kansas University Medical Center

Eric T. Edgell, PharmD, MS
DePuy

Ann L. Elderkin, PA
American Society for Bone and Mineral Research

Shamiram R. Feinglass, MD, MPH
Zimmer, Inc.
Musculoskeletal Summit Speaker

Jack Flynn, MD
Pediatric Orthopaedic Society of North America
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The **Value** in Musculoskeletal Care

defining value

measuring value

promoting quality

cost effective care

containing costs

patient perspective

stakeholder interests

resource allocation

reducing disparities

increasing prevention

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Appendices

containing costs

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stakeholder interests

resource allocation

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The Bone and Joint Decade

Promoting musculoskeletal health

Keep people moving

October, 2011

Dear Colleagues,

The Bone and Joint Decade – the Global Alliance for Musculoskeletal Health

I would like to make you aware of the challenges we face in achieving our goal to ensure musculoskeletal conditions are among the leading major health concerns in the minds and actions of opinion formers in countries throughout the world. I wish to inform you of what has been done with the World Health Organization (WHO) over the last 6 months in pursuit of this goal; what we have learnt; and what we believe are the next steps.

As you know, at present health priorities in no way reflect the enormous impact these conditions have on individuals and society. Many musculoskeletal conditions are preventable or can be managed to enable those affected to lead a fuller and productive life. The result would be a reduced financial burden on world economies. Yet many governments fail to recognise such gains.

Musculoskeletal Conditions and World Health Organization priorities

In 1976, at the World Health Assembly, the then Director-General of the WHO Dr. Halfdan Mahler said: "Perhaps the most fundamental difficulty in regard to rheumatic diseases is that the problem is insufficiently appreciated and understood. Critical to this lack of appreciation is an information deficit."

In 2000, a WHO Scientific Group on the Burden of Musculoskeletal Conditions at the Start of the New Millennium met in Geneva. Dr. G. Harlem Brundtland, Director-General of the World Health Organization, stated when opening the meeting that, although the diseases that kill attract much of the public's attention, musculoskeletal or rheumatic diseases are the major cause of morbidity throughout the world, having a substantial influence on health and quality of life, and inflicting an enormous burden of cost on health systems. Kofi Annan, when endorsing the Decade as UN Secretary General said, "With the increasing number of older people and changes in lifestyle occurring throughout the world, this trend will increase dramatically over the next decade and beyond. ...we must act on them now."

However, the WHO's 2010 Global Status Report on Non-communicable Diseases confines itself to four NCD's with high mortality: cancer, cardio-vascular, diabetes and chronic respiratory. There is scarcely a mention of musculoskeletal conditions, or any other non-communicable disease with low mortality and high morbidity rates.

So, a generation on from the statement of Dr. Mahler, little appears to have changed at the WHO. Despite this turn of events, there is some recognition by the WHO of the importance of musculoskeletal conditions and of the value of the Bone and Joint Decade's global alliance. We have been invited to work with the WHO on several initiatives. This gives us the opportunity to influence the organization and also countries around the globe that either gain guidance from the WHO in developing their health policies and priorities; or those countries that are influential in developing these policies.

Working with the WHO and policymakers in the new Decade

In recognition of the enormous and growing burden of non-communicable diseases (NCDs) the WHO has developed a strategy for their prevention and control and held a high level UN Summit in September 2011. This brought together health ministries from developed and less developed countries to focus on actions that should be undertaken to control these conditions. However the WHO has made a priority of those NCDs with high mortality – cancer, cardiovascular diseases, respiratory diseases and diabetes. As a result national governments are beginning to focus on non-communicable diseases, but only prioritising those conditions with high mortality rather than those with high morbidity but low mortality, of which musculoskeletal conditions are a major contributor. The **Bone and Joint Decade** participated in the UN Summit and pre-meetings in Moscow and New York that brought NGOs together. From discussions with the WHO and national health policy makers, it is clear that there is a resistance to making any further specific conditions a priority.

There therefore remains much to be done to change these priorities.

In June 2011, the WHO released the first World Report on Disability which recognises the importance of loss of mobility and the limitations caused by musculoskeletal conditions, particularly in an ageing population. The **Bone and Joint Decade** participated in the launches of this ground-breaking report at the UN, New York and WHO, Geneva, and has been invited to be a partner in its implementation. The WHO has also launched the Decade of Action for Road Safety and a Global Alliance for the Care of the Injured, of which we are a core participant. These two activities highlight the need for more effective prevention and management of conditions as well as injuries that impact musculoskeletal health. In addition there are public health concerns about the ageing of populations and we need to emphasise the importance of maintaining musculoskeletal health and function throughout life.

The **Bone and Joint Decade** has been invited to participate in these various activities despite musculoskeletal conditions not being a declared priority. This gives us an opportunity to change the paradigm towards prioritising the prevention and control of conditions with high morbidity and long term impact on individuals and society.

In driving this, the strength of the **Bone and Joint Decade** is as an alliance for musculoskeletal health that brings together at national, regional and international levels all the relevant professional, scientific and patient organisations.

The **Bone and Joint Decade** will continue to work at an international and regional level to have musculoskeletal conditions recognized as a priority, and encourages and supports advocacy at the national level. Priority at the global level can only be achieved by gaining the support of the nations. We depend on your efforts to achieve our common goals.

Establishing the value in musculoskeletal care is clearly important to you on a national level, but your deliberations and the resulting product undoubtedly will prove invaluable to other countries reading the Summit report, and to the global effort to raise awareness for musculoskeletal conditions. I and the BJD International Coordinating Council congratulate you on choosing this topic.

With best wishes for a successful meeting,



Anthony Woolf, MBBS, FRCP
Chair, International Coordinating Council
Bone & Joint Decade 2010-2020



The Bone and Joint Decade works to reduce the burden and cost of musculoskeletal disorders to individuals, carers and society by promoting musculoskeletal health and science worldwide. The Decade is endorsed by the UN and WHO, with declared support from over 60 governments. Launched by UN Secretary General Kofi Annan on November 30 1999, the Decade draws on the expertise of national academic, professional and patient organisations across the globe. In 2010 the Decade renewed its mandate for another 10 years with the Vision "Keep People Moving". Its global objective is to raise the recognition of the importance of musculoskeletal conditions at the global, regional and national levels.

www.boneandjointdecade.org

The Value in Musculoskeletal Care

Summit Background

Impact Statement

The cost of musculoskeletal disease in the United States is approaching \$1 trillion each year and is likely to increase as the population ages and life styles become more active. These increases are occurring at a time of an unprecedented debate on health care and possible redirection of major programs. Since overall health care expenditures in this country continue to rise, the current models for care delivery may not be sustainable, demanding new strategies to optimize health and improve quality of life. To meet the challenges of a changing world and establish priorities for resource allocation in the future, the musculoskeletal health care community must define and measure the value of the care it provides. The United States Bone and Joint Initiative (USBJI), the U.S. National Action Network of the worldwide Bone and Joint Decade, views this issue as critical and is convening this summit to address value from the perspective of patients, providers, industry and payers among others.

In its summit, the USBJI will engage a broad range of stakeholders to consider value in musculoskeletal care. By definition, value represents a standard or feature regarded as desirable or worthwhile. While the value of care involves quality and cost-effectiveness, it transcends both in its impact on society. Determining value in care demands consideration of societal as well as personal health and well-being that can result from diverse approaches for prevention and treatment. Given the increasing costs of health care and the changing demographics, it is imperative that we focus attention now on the cost and cost-effectiveness of musculoskeletal care. The USBJI is committed to a leadership role in improving the health of the nation and making value an important goal of musculoskeletal care in all of its dimensions.

Summit Goal

In the face of the realities described above, the goal of the Summit is to provide a platform to enable musculoskeletal specialty organizations to develop their own value proposition, and an opportunity for organizations with similar areas of interest to connect and collaborate on the development of needed guidelines and measures. A specific outcome of the Summit will be the development of a Consensus Statement, with priorities and framework for an action plan. The Consensus Statement will include the definition of musculoskeletal value, and consensus on how to measure value. The action plan framework will propose gaps in data, guidelines and evidence-based research, outcome and function measures that are required to support the value proposition for musculoskeletal care, and how value should be used.

Reasons for Attending

- Health care is becoming more and more expensive. Between 2000 and 2008 the health expenditures in the U.S. grew by 4.2% annually while the GDP grew by 2.2% per year. In 2008, the U.S. health care expenditures were 16% of GDP; the second highest spending countries were France with 11.2% and Switzerland with 10.7%. It is obvious that the funding for health care is not going to be allowed to grow indefinitely.
- If the funding for health care does not grow, a critical issue becomes its distribution among subspecialties, disciplines and providers. To promote allocation of resources to the musculoskeletal area, we will need to demonstrate value in a clear and decisive way.

Many of the members in the Bone and Joint Decade/Initiative realize the importance of demonstrating value in care although experience in this area is not extensive and methodology is only developing.

- By assembling a group of experts to define the value in musculoskeletal care and how to measure and promote it, our goal is to provide a platform from which the individual organizations can work to refine their value propositions and develop programs for advocacy and strategic planning.
- The meaning of value may differ among stakeholders although there may be areas of agreement. To provide a more unified approach, it is important therefore to assemble representatives of different stakeholders to address the underlying topic and begin to develop a consensus on determinants of value. Development of such a consensus will provide member organizations a framework for further development of their value propositions.
- Your participation in the discussions and workshops is important. In addition to what you take back to your own organization, you will be asked to participate in the development of a Consensus Statement and framework for an action plan which will be an outcome of the Summit.

Benefits of Participation

Your organization will benefit from participation by the opportunity to:

- Identify and discuss issues of common interest with leadership and members of the various musculoskeletal organizations. This will facilitate collaboration and realization of organizational goals;
- Provide input from your organization's perspective on how musculoskeletal value should be defined and measured;
- Contribute your organization's perspective in development of a Consensus Statement that will be developed at the Summit, as well as to establish priorities and the framework for an action plan. The Consensus Statement will include the definition of value in musculoskeletal care and consensus on how to measure value;
- Help determine how the definition of "value" can be used by your organization and its members for advocacy and planning, as well as by the musculoskeletal community at large;
- Provide input on your organization's assessment of gaps in data and needs for guidelines and evidence-based research, outcome, and function measures.

The Summit will:

- Provide an opportunity for organizations with similar areas of interest to connect and collaborate on the development of these guidelines and measures for values in care;
- Provide a platform to enable member organizations to develop their own value proposition.