The University of Washington Engineered Biomaterials Engineering Research Center (UWEB ERC) brings together leading scientists, researchers, doctors and UWEB corporate partners. Together, we are working to create the next generation of implantable materials that heal in the body.

Buddy D. Ratner is Director of the University of Washington Engineered Biomaterials Engineering Research Center (UWEB ERC). He is also a UW Professor in the Departments of Chemical Engineering, Bioengineering, and Chemical Engineering. He received his PhD (1972) in Polymer Chemistry from the Polytechnic Institute of Brooklyn. He established the NIH- funded National Biomaterials Science and Surgery Research Center (NABSSRC) in 1984, now directed by David Castron. His research interests include biomaterials, surface analysis of organic materials, self assembly, and catalytic materials.

Christopher Allan is a UW Assistant Professor, Section of Hand and Microsurgery, in the Department of Orthopaedics at the UW Medical School. He received his MD (1992) from the Northwestern University Medical School, interning at Northwestern University-Loyola Medical Center until 1993 and a resident in Orthopaedic Surgery at the University of Chicago Hospitals until 1997. Dr. Allan's research interests include repair and regeneration, tissue engineering, and the application of these fields to extremity injuries.

Karl Böhringer is a UW Associate Professor in the Department of Electrical Engineering and a UW Adjunct Professor in the Departments of Computer Science & Engineering and in Mechanical Engineering. He received both his MS and PhD degrees in Computer Science from Cornell University and his Diploma-Informatiker degree from the University of Karlsruhe, Germany. His current interests include micromanipulation and microassembly, as well as biomedical implants and bioMEMS for single-cell genomics and proteomics.

James D. Bryers is a UW Professor in the Department of Bioengineering and Adjunct Professor in the Department of Mechanical Engineering. He received his PhD (1980) in Chemical Engineering from Rice University. His research interests include bacterial adhesion, biofilms, and immobilized cell bioreactors.

David G. Castron is Director of the NIH-funded National ESCA (Electron Spectroscopy for Chemical Analysis) and Surface Analysis Center for Biomaterial Problems (NABSSRC) and a UW Research Professor of Bioengineering and Chemical Engineering. He received his PhD (1979) in Physical Chemistry from the University of California, Berkeley. His current research interests are focused on the development and application of surface analysis techniques (ESCA, static SIMS, AFM, NEXAFS) for the characterization of polymeric biomaterials, organic thin films, and catalytic materials.

Cecilia M. Giachelli is Deputy Director of UWEB and a UW Professor in the Department of Bioengineering. She received her PhD (1987) in Pharmacology from the UW. Her research areas are tissue engineering, calcification, cell-material interactions, foreign body response and ectopic calcification.

Kip Hauch is a UW Scientific Coordinator for BEAT (BioEngineered Allogeneic Tissue), a NIH-funded Bioengineering Research Partnership focused on the tissue engineering of heart muscle. He is a Research Professor in Chemical Engineering from the University of Minnesota and his PhD from the University of Washington. He also manages the UWEB Optical Microscopy and Image Analysis Center. His research focuses on building functional cardiac and cardiovascular tissue engineering, percutaneous wound healing, surface modification and molecular engineering, platelet- and monocyt-biomaterial interactions, and signal transduction.

Allan S. Hoffman is a UW Professor in the Department of Bioengineering and Adjunct Professor in the Department of Chemical Engineering. He received his PhD (1970) in Biochemistry from the UW. His research interests include the interaction of cells and proteins with foreign materials, anti-thrombotic peptide, and antibiotic delivery.

Themis Kyriakides is a Yale Assistant Professor of Pathology and Biomedical Engineering. He received his PhD from Washington State University in Microbiology. His research interests are cellular and molecular events at the interface between biomaterials and tissues during biomaterial-induced inflammation; wound healing and tissue regeneration with a focus on angiogenesis and extracellular matrix remodeling; in vivo work on genetically-modified mice; gene delivery from biomaterials; development of biodegradable polymer; modification of glucose sensors; and development of artificial skin.

John E. Olerud is a UW Professor and Division Head of the Department of Medicine/ Dermatology and Associate Dean of the Department of Orthopaedics, Sports Medicine. He received his MD (1971) from the UW School of Medicine, training in Dermatology (1975) and Dermatology (1977) at the UW. His research includes abnormal wound healing in patients with diabetes mellitus and cutaneous T-cell lymphoma. His clinic practice is in cutaneous lymphoma, skin manifestations of diabetes and internal diseases, leg ulcers, and connective tissue diseases.

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Patrick S. Stayton is a UW Professor in the Department of Bioengineering. He received his PhD (1989) in Biochemistry from the University of Illinois-Champaign. His research interests include protein engineering, biomaterials, drug delivery, and biomimORIZATION.

Tom Wight is a UW Professor of Pathology and a Washington member of the Hope Heart Program at Benaroya Research Institute at Virginia Mason. He received his PhD in Zoology from the University of New Hampshire, Durham. His current research projects include: construction of a tissue engineered blood vessel using a gene therapy approach; biology of the artery wall; and the use of proteoglycan genes to engineer vascular tissue.

Migla Zhang is a UW Assistant Professor in the Department of Materials Science and Engineering. She received her PhD (1999) from University of California-Berkeley. Her research interests are protein and cell biomaterials, protein immobilization, biocompatibility assessment, surface bioengineering by self-assembled films, protein and cell micropatterning, tissue engineering, biorecognition at interfaces, BioMEMS (microelectromechanical systems) for drug delivery and diagnostics.