



# Best Practices Center for Healthcare Operational Excellence

## Background and Offering

*Housed in The Boeing Center for Technology,  
Information, and Manufacturing (BCTIM)*



# Best Practices Center Vision

## **Establish a Best Practices Center for Healthcare in the BCTIM at Washington University Olin Business School:**

- *Access to Leading Research and Exceptional Faculty*
- *Insights of Best Practices in Healthcare and Industry*
- *Opportunities for Networking and Collaboration*
- *Multidisciplinary Approach to Solving Complex Challenges*
- *Projects Led by Top Quality Faculty and Students*
- *Operational Excellence & Supply Chain Solutions*

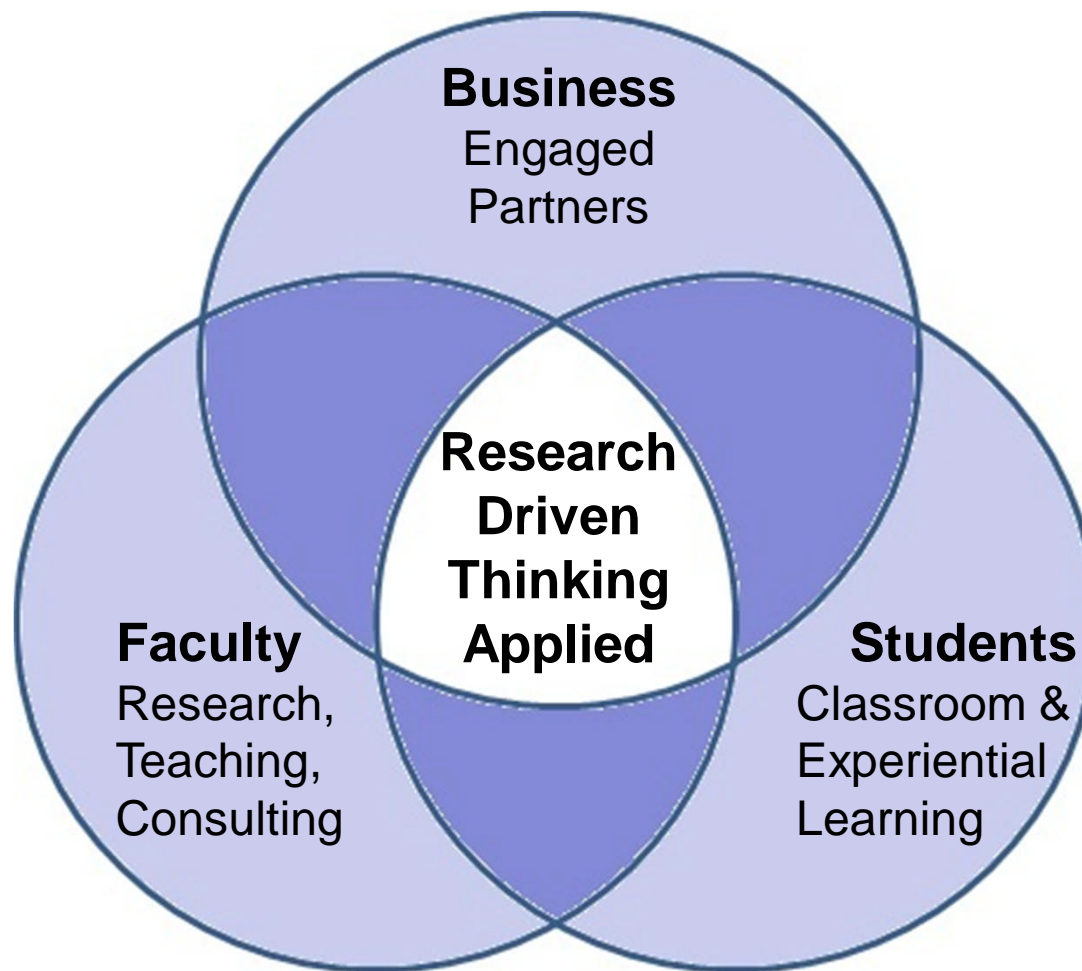
# Boeing Center for Technology, Information, & Manufacturing

## BCTIM

- Industry Research Projects
  - *BCTIM member specific*
  - *Faculty/student team*
  - *Typically 3 to 4 months*
- Industry Conference
  - *Themed presentations from member organizations and Olin faculty*
  - *Collaboration and networking opportunities*
- Executive Seminars and Guest Lecture Series
  - *Timely, insightful, and relevant topics and areas of research*
- Recruiting Events
  - *Highlighting Olin MBA's with specific backgrounds*



# Academic/Business Collaboration Model



# BCTIM Projects

- **Supply Chain Assessment Tool**  
(Monsanto)
- **Product Line Complexity Analysis at Solutia**  
(Solutia)
- **Assessment of Key Supplier Capabilities at Emerson**  
(Emerson)
- **Supply Chain Reengineering and Operations Analysis**  
(Anchor Packaging)
- **Global Supply Chain Analysis and Industry Trends**  
(Express Scripts Inc.)
- **Capacity Expansion and Contract Design in a Semiconductor Industry**  
(Renesas Technology)
- **"Managing the New Uncertainty"---Day Definite Ocean Shipments & Their Value in Handling Lead-time Uncertainty**  
(APL Logistics)
- **Development of Key Performance Indicators for a Pharmaceuticals Distribution Company**  
(Covidien)
- **Forecasting and Planning in a Semiconductor Decentralized Supply Chain**  
(Renesas Technology)



# Best Practices Center for Healthcare Operational Excellence

- Hospital/Health System-specific Research Projects
  - *Faculty-directed and student-administered project teams*
  - *Typically 3 to 4 months in length, but can last full academic year*
- Roundtable Educational Events
  - *Keynote speakers with opportunity for discussion and networking*
- Healthcare-specific Executive Seminars
  - *Content developed to meet common Healthcare needs*
- Invitations to BCTIM Events and Guest Lecture Series
  - *Including Healthcare-oriented thought leaders and innovators*
  - *Cross-industry sharing of ideas and solutions*

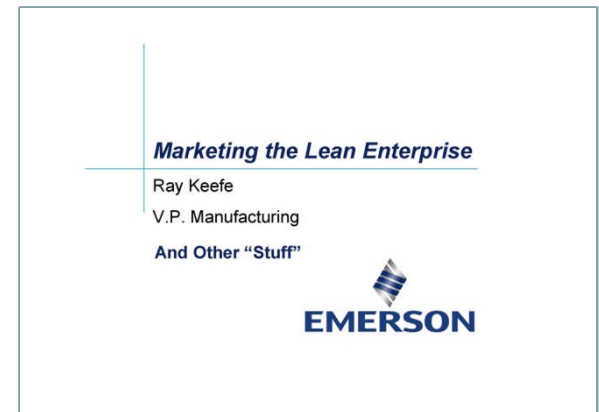
# Roundtable Educational Events

- “Marketing the Lean Enterprise”

*Ray Keefe*

*VP Manufacturing*

*Emerson*



- “Managing the Innovation Process in Healthcare”

*Robert Porter*

*President, Programs and Services*

*Chief Strategy Officer*

*SSM Health Care*



# Integrating Design Thinking

- Executive MBA, MBA, & MS-SCM Education
  - *“Managing the Innovation Process” MGT 550/750*
  - *Professor Panos Kouvelis, Sr. Associate Dean*
- Focus of Half-day Healthcare Roundtable
  - *Attendees from BJC Healthcare, SSM Health Care, Sisters of Mercy Health System, St. Luke’s Hospital*
  - *CMO’s, COO’s, Nurse Executives, Physician Executives, Sr. Process Improvement Professionals, Supply Chain*
  - *Presented by Robert Porter & Professor Panos Kouvelis*
- Included in Student Project Team “Tool Kit”
  - *Along with “Tools” like Benchmarking, Simulation, Queuing, System Dynamics, Lean, and Six Sigma*



# Involvement in BCTIM/Industry Events

## “Managing Complexity in Supply Chains: The New Imperative”

- *Day-long Supply Chain Conference*
- *Presentations from BCTIM members:*  
*(Boeing, Monsanto, Emerson, Solutia,*  
*Express Scripts, APL Logistics)*
- *Healthcare Best Practices Center Guest Speakers*
  - *“System-wide Supply Optimization”*  
*Marion Reynolds, Director - BJC Healthcare*
  - *“Supply Chain is Not a Department, It’s a Strategy”*  
*Vance Moore, President - ROi/Sisters of Mercy*



# Guest Speakers

- “Operational Excellence in Healthcare”

*Dr. Nathan Ravi  
Chief of Staff  
VA Medical Center*



- “Dynamic Decision Making in Health Care”

*Professor Martin L. Puterman  
Sauder School of Business  
University of British Columbia*



# How to Get the Best of Both Worlds...

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## THE BUSINESS OF HEALTH CARE

Health care has been one of the most passionately debated issues in the 2008 U.S. presidential campaign — across the political spectrum. Technological advances have resulted in amazing medical breakthroughs, but they require money to develop. Experts predict the health care industry will make up 19.6 percent of the country's gross domestic product by 2016. Patients, providers and businesses that pay for health-related services want to reduce rising costs. At the same time, millions of Americans are uninsured or underinsured, and their numbers are increasing.

Health care professionals frequently fall into different camps. Physicians and researchers with specialized clinical knowledge often speculate that cost-control measures could undermine patient care and discourage important innovations in medical devices, surgical procedures, imaging technology and pharmaceuticals. Business administrators believe inefficiencies in health care delivery drive up prices, which, in turn, makes U.S. companies less competitive in a global economy.

Olin Business School is helping to improve the health care industry prognosis — developing a new generation of leaders who manage organizations that combine leading-edge medical and business practices. At the front line of this effort are Barton Hamilton, Robert Brookings Smith Distinguished Professor of Entrepreneurship, and Dr. Bruce Lee Hall, associate professor of surgery at Washington University School of Medicine and Olin's associate professor of Health Care Management.

"There's an incredible need for financial and management knowledge in every aspect of the health care industry," says Hall. "We're preparing individuals to meet that need and to change the face of health care delivery."

The professors have collaborated on research that evaluates clinical productivity and surgeon performance. In a study conducted with University of Michigan colleagues Darrell Campopoli Jr. and Laurel Phillips, they found the overall cost of treating a representative patient differed by as much as 45 percent. "To the extent these results reflect surgeon-specific practice styles, they suggest a target for quality improvement from both the payer and provider perspectives," the researchers state.

Their work has been published in the *Quarterly Review of Economics and Finance* and the *Journal of the American College of Surgeons*.

This fall, Hamilton and Hall introduced an interdisciplinary Health Care Management curriculum for Washington University undergraduates. An extension of courses previously offered at Olin, it consists of three tracks: a major for BSBA students, a second major for nonbusiness undergraduates and a minor. Required courses include "Olin Grand Rounds," "Health Care Economics & Policy," "Health Care Management" and "Research in Health Care Management." The curriculum has attracted students with a variety of interests, including aspiring managers, doctors, lawyers and social workers.

The redesigned "Olin Grand Rounds" course — based on teaching hospitals' forums for presenting and evaluating medical cases — is co-taught by Hamilton, Hall and Dr. Cynthia Wichelman, assistant professor of emergency medicine at Washington University School of Medicine. It begins with an introductory "Business and Medicine 101" lecture. Although the primary focus of the course is on the United States, guest speakers also discuss high-priority subjects that affect other countries, such as the AIDS epidemic and global disease control, the organ-transplant market, and treatment disparities.

"Research Seminar in Health Care Management" is the capstone course for the major and serves as an excellent example of Olin's strategic emphasis on expanding collaborations among faculty, students and business. Student teams work on projects identified by University professors and corporate partners. Areas of study could include an analysis of the operational conduct of surgical procedures in the Washington University Medical Center, an examination of the potential market for new pharmaceutical products and medical devices or the development of a business model for the provision of special services to the Medicaid population. At the end of the course, each team must write and present a research paper worthy of submission to an academic journal.

Hamilton says the close collaboration of Olin and School of Medicine professors — and their balanced presentation of management and medical issues — differentiates Olin. "Most programs have a strong clinical focus and a minimal business focus, or the reverse."

Jeff Cannon, Olin's associate dean and director of Undergraduate Programs, says the Health Care Management curriculum — approved in spring 2008 — grew out of students' enthusiastic response to the original "Olin Grand Rounds" course.

"Our new Health Care major and minor demonstrate Olin's ability to be innovative and nimble in its program design," he says. "The industry needs managers who have business acumen, clinical understanding and want to remedy the current health care crisis. Students with these abilities will be in great demand in the marketplace."

"Washington University is the ideal institution to offer this type of instruction," says Dr. Steve Miller, EMBA '02, senior vice president and chief medical officer of Express Scripts, a pharmacy benefit management company. "It has highly ranked medical and business schools, outstanding faculty, and proximity to local health care experts who are eager to contribute their time and effort."

"Together, we have tremendous potential for thought leadership and the development of health care professionals with an extremely valuable tool set," Miller adds.

Dr. Mary Mason agrees.

Twice a month, Mason, MD '94, PMBA '99, volunteers in the outpatient internal medicine resident clinic at Barnes-Jewish Hospital in St. Louis. The senior vice president and chief medical officer of Centene — a firm that provides

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health care programs for Medicaid recipients — says it's important for her to maintain direct patient contact in a position that requires top-level management.

Taking over the more complicated cases with residents and interns, she asks if they've called patients' health plans to see if the patients are in case management.

"Medical students and residents often have the perception that all managed care is bad," Mason says. "They don't realize a health plan often has nurse case managers and social workers who connect people to resources and specialty services that improve medical conditions, control symptoms and may prevent hospitalization in the first place. Sometimes, solving what you thought was a little problem makes a big difference in their quality of life."

"It's all about better outcomes at lower cost," she says.

"When I was in medical school, no one said he or she was going into managed care. Programs like Olin's are changing that," says Mason.

# Best Practices Center for Healthcare Operational Excellence

## The Best Practices Center for Healthcare Operational Excellence:

- Forefront of New Innovations and Best Practices
- Availability of Exceptional Faculty and Students
- Multidisciplinary Approach to Solve Complex Challenges
- Transformational, Insightful, and Collaborative

### **Panos Kouvelis**

Sr. Associate Dean and Director of Executive Programs  
Director of The Boeing Center for Technology, Information, and Manufacturing  
Emerson Distinguished Professor of Operations & Manufacturing Management

### **David Butler**

Director of the Best Practices Center for Healthcare Operational Excellence  
Adjunct Professor of Quality Management  
Chair, HIMSS Management Engineering and Process Improvement Committee  
President, HIMSS Midwest Gateway Chapter  
President, Heartland Innovations, LLC