About Our Center

**Director’s Note**

The Interdisciplinary Center for Healthy Workplaces mission is “to re-invent the workplace by integrating and applying interdisciplinary sciences to achieve worker health and psychological well-being.” This fourth issue features information on our researchers, affiliates, projects, and conferences. Also in this issue, we highlight Dr. David Rempel, a physician, professor of medicine, ergonomist and member of the core research team. We also announce our one-day conference on how to build the best workplaces for health and well-being to be held on May 4—keep an eye out for the rest of our “Science to Practice” conference series. We will have a panel of experts – researchers and practitioners – who discuss the latest research and current state-of-the-art design for building workspaces that enable employees to do their best work while boosting and maintaining their health and well-being. Evidence-based and practical principles of workplace design will be offered. As a complement to the talks, attendees will receive a workbook to assist building project strategy.

See the conference flyer on page 6 and register online at: [http://healthyworkplaces.berkeley.edu/conference/may-4-2017](http://healthyworkplaces.berkeley.edu/conference/may-4-2017)

**New Research Projects**

See our expanded research project portfolio on page 7.

With funding from Transamerica Center for Health Studies, our new research seeks to identify successful determinants of employee engagement and commitment to wellness programs in small and medium-sized companies.

In addition, with a grant from the Office Ergonomic Research Committee, we seek to create an inventory of scientifically-sound productivity measures for use in human factors/ergonomic research studies.

Finally, check out the literature reviews we are conducting with esteemed members of our interdisciplinary research team and student researchers at UC Berkeley.

<table>
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<th>Registration now open!</th>
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<td>May 4, 2017. We welcome you to join our upcoming conference, “Science to Practice Conference Series: Building the Best Workplace for Health and Well-Being.” We will have a panel of experts – researchers and practitioners – who discuss the latest research and current state-of-the-art design for building workspaces that enable employees to do their best work while boosting and maintaining their health and well-being. Evidence-based and practical principles of workplace design will be offered. As a complement to the talks, attendees will receive a workbook to assist building project strategy. See the conference flyer on page 6 and register online at: <a href="http://healthyworkplaces.berkeley.edu/conference/may-4-2017">http://healthyworkplaces.berkeley.edu/conference/may-4-2017</a></td>
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Our fundamental proposition is that worker health and well-being is built on an understanding of the interaction between the worker and his or her work and workplace - specifically, how the work and workplace affect a worker's basic physical and psychological needs. We are advocating for a shift from single variable models of wellness to an interdisciplinary model of well-being that focuses on physical and psychological states that correlate with and give rise to sustainable worker health and well-being. The HealthyWorkplaces Model emphasizes that improved outcomes are a direct result of positive changes in individuals' physical and psychological states. We want to create positive psychological states within our workforces as these states produce physical and psychological outcomes that are good for people and for organizations.

As a result of our extensive and selective literature search, we have constructed a framework of well-being that posits a number of psychological states that correlate with well-being. Positive emotions are a central component of the framework and through which we ultimately experience well-being and build resilience. Positive emotions broaden our capabilities in the present and build social, physical, psychological, and emotional resources for the future. They also buffer us against the harmful effects of stress and help us recover more quickly. Satisfaction of the other basic needs in the model enable people to grow competencies, achieve, connect, and work with meaning.
Meet the Experts

Cristina Banks, PhD

Dr. Banks is Director of the Interdisciplinary Center for Healthy Workplaces. In collaboration with Dr. Sheldon Zedeck, Dr. Banks leads a team of 30 researchers spanning multiple disciplines and 20+ affiliates in collecting and integrating scientific findings and creating new research programs to advance our knowledge in this area. Dr. Banks brings her 35 years of experience in consulting and studies of work and organizational processes to the Interdisciplinary Team. She is a skilled facilitator, a nationally-recognized expert in employment law compliance, and a strategic leader in the development and implementation of large-scale projects. She is also a Senior Lecturer at the Haas School of Business.

Sheldon Zedeck, PhD

Dr. Zdeck, Associate Director of the Interdisciplinary Center for Healthy Workplaces, Professor Emeritus of Psychology and former Vice Provost of Faculty for UCB, has nearly 50 years of experience as an academic and practitioner focused on workplace issues. He has published research on a variety of topics including employment discrimination, work/life balance, performance management, and employment law compliance. He has served as an advisor to government and state agencies such as the US Department of Justice, Department of Labor, and the Department of State. He has also advised many organizations and testified in numerous legal cases in an effort to reverse adverse impact against minorities.
We are pleased to announce our featured researcher in this newsletter, Dr. David Rempel, MD, MPH. David is a Physician of Occupational Medicine, Professor of Medicine at UCSF, a Professor of Bioengineering at UC Berkeley, and a core researcher at The Ergonomics Program at the Center for Occupational and Environmental Health (COEH) at UC Berkeley. As a member of the interdisciplinary research team at HealthyWorkplaces, he has provided insight for the HealthyWorkplaces research for the Office Ergonomic Research Committee Project (OERC), which seeks to create an inventory of scientifically-sound productivity measures for use in human factors/ergonomic research studies.

Dr. Rempel's research interests lie in peripheral nerve entrapment, including carpal tunnel syndrome, work-related tendon disorders, hand biomechanics, and the design of hand tools. He has performed research on ergonomic office interventions such lighting, sit-stand workstations, alternative keyboards, computer mice, game controllers, office chairs, forearm support, monitor placement, and the use of hand gestures for computer input. His key publications include “Guidelines for wrist posture based on carpal tunnel pressure thresholds,” “Workplace and individual factors in wrist tendinosis among blue-collar workers,” and “The effects of visual display distance on eye accommodation, head pressure, and vision and neck symptoms.”

HealthyWorkplaces interviewed Dr. Rempel to delve deeper into ergonomic strategies that can be implemented specifically in workspaces with computers and monitors for worker well-being.

For one, lighting and vision are often underestimated factors contributing to awkward postures and fatigue and discomfort in the workplace. For example, Rempel explains that glare on computer monitors can cause visual discomfort and may lead workers to lean forward to better see the characters. Glare can be caused by a window either directly in front of or behind the worker. Simple solutions include orienting the monitor so that glare sources are to the side, using indirect overhead lighting (i.e. reflecting light toward the ceiling) to spread out the light source, or cutting the glare from windows with blinds.

In addition, the font sizes on computer monitors are often too small and that requires us to lean forward to get our work done. Typically, the characters and numbers on the screen should be larger than 2.5mm in height. It is also important to consider that the lenses of the eyes grow more rigid with age making it more difficult to focus on small text. Thus, large monitors with large font sizes are will help reduce discomfort and fatigue and will improve productivity.

Rempel also provided background regarding key interventions to avoid musculoskeletal discomfort in the workplace. Many workers now use laptop computers at their workplace or home office. If they are used for more than a few hours per day, a large monitor and separate keyboard and mouse can be plugged in to reduce neck and shoulder flexion and pain. The problem of long-term use becomes worse with mobile devices, like smart phones. If used for long hours the devices require users to flex the head forward and down, which fatigues and aggravates neck muscles.

Finally, selecting the proper mouse can help reduce hand and arm pain. A conventional mouse that positions the hand so that the palm is facing down is not a comfortable position for some people to maintain and can put strain on the muscles and tendons in the forearm. An alternative mouse that allows the palm to point more toward the keyboard, like a handshake, may help.

HealthyWorkplaces uses the expertise and information gained from Dr. Rempel's research to design and implement research projects that promote health and well-being of workers. We anticipate our research for OERC will encourage empirically validated, healthy interventions in the workplace, such as those presented by David Rempel.
**Affiliated Center Updates**

**The Center for Information Technology Research in the Interest of Society**

On March 1, Dr. Ida Sim of UCSF School of Medicine presented about mobile technologies for health. She shared that technological events are allowing us to have better insight into biology, environment, and behavior. The webcasted lecture can be found here: [https://www.youtube.com/watch?v=ag-](https://www.youtube.com/watch?v=ag-)

**Institute for Research on Labor and Employment (IRLE)**

On March 22, IRLE hosted an event: Indigenous Mexican Farmworker Youth: New Research In Development, where Dr. Seth Holmes presented new research in development on indigenous Mexican farmworker youth in California, Washington State, and the mountains of Oaxaca, Mexico. More info on the event can be found at [http://irle.berkeley.edu/event/to-be-announced/](http://irle.berkeley.edu/event/to-be-announced/)

**Center for Built Environment (CBE)**

On May 3, CBE will be hosting a Symposium on Resilient Design for Buildings, Communities and Cities. The event is free and open to the public. In other news, two proposals from the Center for Built Environment were recently selected for funding through 2017 research grants from the Siebel Energy Institute. These proposals, to be funded in the 2017 term, leverage technologies from the emerging Internet of Things (IoT) in buildings, including data analytics, advanced sensing, occupant engagement and energy performance in new and innovative ways. The Siebel-awarded research proposed by Assistant Prof. Stefano Schiavon, SinBerBEST Postdoctoral Scholar Shichao Liu, and Associate Prof. Lin Zhang of Tsinghua University/TBSI is to create wearable sensors that will better inform building control strategies in terms of when heating and cooling is required.

**Health Research for Action**

In May, Professor Linda Neuhauser and Eve Wen-Jing Lee of Health Research for Action (HRA) received the IHA International Award for Outstanding Achievement in Health Literacy for their ongoing Wellness Guide for Chinese Workers. The guide, which is part of the Changzhou Worker Wellness Project, was recognized as an innovative collaboration across continents and languages at the 15th annual Institute for Health Advancement Health Literacy Conference. The ongoing project aimed to improve the health knowledge of migrant factory workers in China. HRA helped its Chinese partners adapt "the Berkeley Participatory Model" to develop the guide—a process that engaged factory workers and other stakeholders to identify worker problems and solutions to address them. For more information, visit: [http://healthresearchforaction.org/wellness-guide-chinese-workers-wins-health-literacy-award](http://healthresearchforaction.org/wellness-guide-chinese-workers-wins-health-literacy-award)
Science to Practice Conference Series
Building the Best Workplace for Health and Well-Being

May 4, 2017

Every company providing physical workspaces must address one basic question: How should we build it? The answer is often missing one important practical factor – employee health and well-being. What if the company could create a structure that actually facilitated employee well-being, productivity, and organizational prosperity? Even if the company is considering only a remodel, could it do so to obtain these same outcomes? The answer to both of these questions is YES.

We now know through scientific studies and reviews of best practice what physical elements of the environment facilitate employees’ health and ability to do their best work. Cost, timeframe, and architectural aesthetics need not be significantly affected—smart design of the physical space can incorporate these priorities at the same time.

This one-day conference presents the most up-to-date thinking and validated design strategies for building smarter workspaces that promote both well-being and organizational effectiveness. A team of national experts presents the facts based on science and best practice on what works and what doesn’t—and how this translates into design strategies. Complementing the science, a panel of leading-edge practitioners and innovators will share their knowledge of smart workplace interventions and pitfalls to avoid. Participants will also receive a workbook summarizing the information provided in the conference and a decision process guide integrating this knowledge into a coherent building project strategy.

Register for the conference today at http://healthworkplaces.berkeley.edu/conference/may-4-2017

SPEAKERS

Cristina Banks, PhD
Industrial/Organizational psychologist, and Founder/Director of the Healthy Workplaces Center at UC Berkeley. Senior Lecturer at the Haas School of Business, and CEO and Founder of three consulting firms. A nationally recognized expert in work design, organizational processes and employment and serial entrepreneur.

Kevin Kelly, RA
Senior Architect for the Total Workplace Program of GSA’s Public Buildings Service, helped establish the GSA’s Design Excellence Program, and brings an interdisciplinary approach to creating work spaces that promote well-being. He has created assessment tools to guide consolidation of work space while maintaining its quality.

John Swartzberg, MD, FACP
Senior Editor of the Berkeley Wellness Letter and Emeritus Clinical Professor of Public Health. Brings decades of clinical and academic experience to the development of strategies for reducing health risk factors, promoting healthy work habits and lifestyles, and preventing life-threatening diseases and the spread of infectious diseases at work.

Galen Cranz, PhD
Sociologist, Designer, and Professor of Architecture, UC Berkeley. Associate Director of the Center for the Built Environment World’s expert on “the chair,” the Alexander technique, posture, and body consciousness design. Consultant and speaker to organizations and professional societies, changing the way people think about posture, movement, and workplace design.

Anthony Ravitz
Designer and Engineer on Google’s Real Estate and Workplace Services team. Spearheads sustainability efforts in Google’s offices, promoting health and productivity while reducing the company’s environmental footprint and operating costs. Projects range from office renovations and lighting retrofits to the installation of Google’s solar photovoltaic system.

Sally Augustin, PhD
Environmental psychologist, founder and principal at Design with Science. Highly respected global expert in human-centered design, and author of Place Advantage. Specializes in designing for emotions, productivity, and well-being. Clients include firms worldwide designing places, objects, and services.

Garvais Tompkin, AIA, LEED AP
Architect, Principal, and Firmwide Leader of Garvais’s Workplace Sector and San Francisco Consulting Practice Area Leader. A cutting-edge thinker, his work spans the world, as he conceive global services for some of the world’s best-known tech companies. His passion for research led him down a multidisciplinary path in real estate strategy and design. A frequent writer and speaker, his work has appeared in Fast Company, IIDA Perspective and International Design Magazine, and in various TED talks.

Megan Mokri, MBA
Founder and CEO of Byte, a company that uses RFID-enabled refrigerators to offer the most affordable fresh food solution for offices. Expertise in technology and business led to the development and implementation of these “grab and go” smart refrigerators providing healthy meals 24/7 in this rapidly expanding market. A frequent speaker and advocate for healthy eating.

Gretchen Gscholdie
Engineer and industrial designer, and Leader of Herman Miller’s Insight + Exploration team. Champions research and creativity in the earliest phases of Herman Miller’s product development efforts and leads the team that explores unmet customer needs and responds to strategic questions identified by organizational leaders. Led the R&D team in the development of its recent signature program, Living Spaces.
Center Projects

Transamerica Center for Health Studies Project
INVESTIGATORS: CRISTINA BANKS, MIKAELA BURNS, ASTRID ZAMORA, ISABELLE THIBAU, JUSTINE YU
The objective is to understand and identify successful determinants of employee engagement and participation in behavior change and wellness programs. The primary outcome of this project is an employer guide for successful implementation of wellness programs with improved participation rates and healthy behavior change for small and medium-sized business.

Office Ergonomic Research Committee Project
INVESTIGATORS: CRISTINA BANKS, ALLISON BAKAMJIAN, QUYNH-TRANG NGUYEN, ISABELLE THIBAU
The objective of this project is to create an inventory of scientifically-sound productivity measures for use in human factors/ergonomic research studies.

Graduate Student Survey on Well-Being
INVESTIGATORS: ISABELLE THIBAU, MAX PITTMAN, FRAN KIPNIS, IRIS ANANTHSET, CRISTINA BANKS, SHELDON ZEDECK
The aim of this project is to collect information on graduate student well-being as a function of their study environments. The survey, developed by Center researchers, has been administered to UC Berkeley graduate students campus-wide. HealthyWorkplaces will use the results of this survey to understand the current student work environment and examine relationships between features in this environment and student health and well-being outcomes.

Healthy Universities
INVESTIGATORS: CHRISTINA MASLACH, CRISTINA BANKS, SIW TONE INNSTRAND, CHRISTOPHER LOWENSTEIN, ISABELLE THIBAU
The objective is to create a way to assess the degree to which a university campus embodies a healthy workplace for its students, staff, and faculty, and to provide guidance on how to build or change workplace factors in order to improve the health and well-being of those on university campuses. We, in collaboration with Visiting scholar and Norwegian University of Science and Technology professor Siw Tone Innstrand, are analyzing the results of a survey (Knowledge Intensive Work Environment Survey Target) used by a Norwegian intervention program as a tool for promotion of psychosocial factors in the work environment.

Designing for a Healthy Office
INVESTIGATORS: CAITLIN DECLERCQ, MAX PITTMAN, GALEN CRANZ, CRISTINA BANKS, ISABELLE THIBAU
The objective is to explore new ways of designing workspace from the perspective of psychological impact. HealthyWorkplaces hosts focus groups to gather information on what elements to build into work environments that will promote certain drivers of health and well-being.

Health Technology in the Workplace: Finding the evidence for workplace interventions
INVESTIGATORS: CRISTINA BANKS, DAVID LINDEMAN, HELEN LEE
The aim of this project is to discover what technology is being offered on the market and is being used in workplaces to improve worker health, well-being, and work outcomes like productivity, engagement, and performance.

Built Environment and Worker Health
INVESTIGATORS: MAX PITTMAN, SALLY AUGUSTIN, CRISTINA BANKS
The objective is to summarize physical environmental factors within the built environment literature that impact employee health status and important organizational outcomes (e.g., creativity, performance).

Physiological Impact of Everyday Work Environments
INVESTIGATORS: JOHN SWARTZBERG, INES IVANOVIC
This project aims to explore the physiological effects of the workplace in the four domains of stress, physical activity, nutrition and infectious disease. Connecting the existing literature in these four areas of health to behaviors, environments and situations in the workplace will illuminate how they can jeopardize or conversely how they may enhance the well-being of those involved.

For more details visit our projects page: http://healthyworkplaces.berkeley.edu/projects/.

Recent & Upcoming Conferences

The University of Texas at Austin School of Architecture

Evidence for Workplace Interventions
February 23, 2017. Cristina Banks was an invited guest speaker at the School of Sustainability, Xavier University of Bhubaneswar, India. Cristina presented our research at HealthyWorkplaces, and introduced the concept of “worker sustainability” as an umbrella for understanding the urgency for improving employees’ physical and psychological environments to support workers’ needs.


June 7-10. Cristina Banks, Isabelle Thibau, Caitlin DeClercq, Siw Tone Innstrand and Sally Augustin are presenting at the 2017 Work, Stress, and Health Conference in Minneapolis, MN.
HealthyWorkplaces is supported by contributions from UC Berkeley, School of Public Health, Berkeley Research Group, Gensler, and Lamorinda Consulting. We need further support to continue our research activities and public outreach. Please join our team of supporters!

Your gift supports the research and work of HealthyWorkplaces, such as:

- Graduate student assistantships to help members of the Interdisciplinary Team on cutting-edge research studies on different aspects of the HealthyWorkplaces Model
- Mini-conferences of subject matter experts to share state-of-the-art knowledge in their respective fields and to work together on implications for practice
- Publishing papers and guides to inform the general public of new ways of promoting health and well-being in the workplace
- Stakeholder “mixers” to promote information exchange and facilitate new relationships around mutual interests

HealthyWorkplaces operates independently as a non-profit under the banner of the University of California. Contributions to HealthyWorkplaces are fully tax-deductible.

Give online using your credit card: healthyworkplaces.berkeley.edu/donate

Checks should be written to "Regents of the University of California" with "ICHW" on the notes line. Donations should be mailed to:

HealthyWorkplaces
2199 Addison Street
50 University Hall, #7360
Berkeley, CA 94720

If you would like to become a corporate member of HealthyWorkplaces, please contact us at healthyworkplaces@berkeley.edu.