3-D Modeling Adds an Extra Dimension

Intricate physical models of human anatomy help physicians gain ground

Page 16
FEATURES

16 3-D Modeling Adds an Extra Dimension in the OR
Intricate physical models of human anatomy help physicians gain ground in the OR, thanks to an up-and-coming 3-D printing technology. By Howard Wolinsky

22 Introducing CountyCare
This coordinated approach to Medicaid relies on federal funding and partnerships to deliver upfront care in the physician’s office. By Bruce Japsen

PUBLIC HEALTH

10 Chicago Braces for Ebola
By Scott Warner

LEGAL

12 Medicare Merges Medical Staffs—Maybe
By Elizabeth Snelson, Esq.

14 PPACA Readmissions Standards Penalize Hospitals
By Karen M. DeBolt, Esq.

MEMBER BENEFITS

24 Council Highlights: Going for the Triple Aim
By Elizabeth Sidney

30 Calendar of Events / New Members

30 New Members

31 Classifieds

WHO’S WHO

32 Innovation for the Future
John Tomkowiak, MD, dean of the Chicago Medical School, has long had a passion for education. Now he’s bringing innovations to the Chicago area. By Cheryl England

STATEMENT OF OWNERSHIP, MANAGEMENT AND CIRCULATION

Publication Title: Chicago Medicine
Publication Number: 0009-3637
Filing Date: 10/22/2014
Issue Frequency: Monthly
Number of Issues Published Annually: 12
Annual Subscription Price: $20 members/$30 non-members.

Publication Title: Chicago Medicine Date for Circulation Data Below:
Extent and Nature of Circulation:

15a. 5,290 (avg) / 5,000 (actual)
15b1. 372.9 (avg) / 164 (actual)
15b2. 4,631.1 (avg) / 4,521 (actual)
15b3. 0 (avg) / 0 (actual)
15b4. 0 (avg) / 0 (actual)
15c. 5,004 (avg) / 4,685 (actual)
15d1. 0 (avg) / 0 (actual)
15d2. 0 (avg) / 0 (actual)
15d3. 0 (avg) / 0 (actual)
15d4. 0 (avg) / 0 (actual)
15e. 0 (avg) / 0 (actual)
15f. 5,004 (avg) / 4,685 (actual)
15g. 2866 (avg) / 315 (actual)
15h. 5,290 (avg) / 5,000 (actual)
15i. 100% (avg) / 100% (actual)

Publication of Statement of Ownership: If the Publication is a General Publication, Publication of this Statement is Required.

Publisher/Editor 10/22/2014

Foil Names and Complete Mailing Addresses of Publisher, Editor, and Managing Editor: Scott Warner/Elizabeth Sidney, Co-Editors, Chicago Medicine, 515 N. Dearborn St., Chicago, IL 60611-4302
Owner: Chicago Medical Society, 515 N. Dearborn St., Chicago, IL 60611-4302.
Complete Mailing Address of Headquarters or General Business Office of Publisher:
515 N. Dearborn St., Chicago, IL 60611-4302.

Publication of Statement of Ownership: If the Publication is a General Publication, Publication of this Statement is Required.

Publisher/Editor 10/22/2014

October 2014 | www.cmsdocs.org | 1
A Call to Combat Climate Change

The World Health Organization has called climate change the greatest public health threat of the 21st century. The derivative health impact includes morbidity and mortality due to extreme weather, disruption of the food supply, increased respiratory and cardiovascular disease, spread of vector borne disease, scarcity of safe potable water, and direct heat stress. These are projected to disrupt civil society and the global economy at a cost of trillions of dollars.

A few months ago, the White House reported that climate is already having some health impact in the United States, and that these changes will amplify some of the existing health threats the nation now faces. Certain people and communities are especially vulnerable to the health effects of climate change, including children, the elderly, those with chronic illnesses, the poor, and some communities of color.

The Intergovernmental Panel on Climate Change, representing an unprecedented scientific consensus, has concluded that the burning of fossil fuels by humans to generate energy is a principal driver of climate change. It has further assessed that much of the earth’s energy needs for the next 50 years can be filled by existing sustainable energy alternatives, but much investment is needed to develop others.

New estimates released in March 2014 by the World Health Organization report that in 2012 approximately 3.7 million people died globally as a result of outdoor air pollution, excluding the contribution of indoor fuel burning. This finding more than doubles previous estimates and confirms that air pollution is now the world’s largest single toxic environmental health risk, trailing only its ultimate effect—climate change—in its devastating impact.

An editorial in The Lancet summarized the disease burden of generating electricity from coal as 24.5 deaths, 225 serious illnesses, and 13,288 minor illnesses for every Terawatt-hour of electricity in Europe. Using these figures, the worldwide health toll from air pollution due to coal combustion alone may be 210,000 deaths, almost two million serious illnesses, and more than 151 million minor illnesses a year.

The editors conclude that, “the lives and well-being of billions of people are at increased risk” from climate change, which disproportionately affects poor nations that lack the resources to adapt to increased health risks. At the most fundamental level, climate change will affect basic social determinants of health including lack of access to clean air and water, sufficient food production, and adequate employment in those countries already living at the edge of disaster. This lack of resilience to a changing disease picture in countries without substantial resources is reflected by their inability to respond to the recent Ebola Virus outbreak.

Making the Commitment

By addressing air pollution and transitioning to clean energy we can save lives and also money. For example, the U.S. Environmental Protection Agency has estimated that the implementation of air quality laws in the United States provided a ratio of health care cost savings to compliance costs of 25:1 in 2010. In other words, every dollar spent complying with the Clean Air Act produced $25 in savings from reduced health care costs.

Therefore, as physicians, we need to commit reducing the unnecessary use of energy in our daily activities and to influence health care institutions within which we practice to do the same. In addition, we should join the British Medical Association (June 2014) in urging our organizations and health care institutions to shift investments from fossil fuel energy to sustainable alternatives. Health care professionals can and must work to influence others as well to leverage resources in a way that mitigates the adverse health consequences of fossil fuels.

Dr. Orris is professor and chief of service in occupational and environmental medicine at the University of Illinois Hospital and Health Sciences System.