

Q1 2013: Inside this Issue

Welcome to the most recent issue of Lincoln International's Healthcare DealReader, a newsletter focused on market dynamics, merger and acquisition trends and events of interest to owners and managers of healthcare businesses globally.

At Lincoln International, we specialize in providing unparalleled merger and acquisition advisory services to

corporations, financial sponsors and privately-held businesses worldwide. Our knowledge of the healthcare sector, global footprint and commitment to understanding our clients' unique business models has allowed us to successfully pair our clients with partners who are ideally suited to meet long-term growth objectives.

In this issue, we are pleased to share with you an article on aging and its impact on healthcare.

We hope you find this newsletter a useful tool and welcome any comments.

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Aging and its impact on healthcare

We have all heard it – the American population is aging. As a result of this demographic trend and other drivers, healthcare expenditures are expected to increase in the coming years impacting all sectors of the healthcare economy. Aging and its effects, including an increased incidence of diseases and chronic conditions, remain among the primary growth drivers in the healthcare industry.

The Buck Institute is the leading, independent research facility focused solely on understanding the connection between aging and chronic conditions to increase longevity and human lifespan. The following piece by Brian Kennedy, CEO and President of the Buck Institute, explores how aging-related research has been effectively pioneered but not widely explored by research organizations as a way to increase quality of life and lower healthcare costs. This research and its potential impact on the healthcare economy has tremendous potential for all who participate in the global healthcare industry.

Aging of the U.S. Population is Driving Healthcare Expenditures

- The number of people over age 65 in the U.S. is expected to reach 88.5 million in 2050 – an average of 10,000 people will reach the age 65 each day for the next 20 years
- Healthcare expenditures rise substantially as people age (from 7.5% of income for ages 55-64 to 12.2% of income for ages 65+)
- Due in part to this aging, prevalence of chronic conditions has been rising – 33% of the US population is expected to be obese by 2050, 42% are expected to have diabetes by 2030 and up to 16 million are expected to have Alzheimer's disease by 2050
- Healthcare costs associated with chronic conditions linked to aging are expected to increase – Alzheimer's disease costs are projected to increase to \$1.2 trillion in 2050 from \$203 billion in 2013 and the economic burden of Parkinson's disease is projected to increase to \$28.8 billion in 2040 from \$14.4 billion in 2010

Source: CDC; Alzheimer's Association; Movement Disorders

Another wake up call for biomedical research and those who fund it

By Brian Kennedy

A recent study in the Journal of the American Medical Association provides a chilling warning of what is to come. Post-World War II Baby Boomers, who make up more than one-quarter of the U.S. population, are living longer but are less healthy than the generation that preceded them. Impending health care costs are poised to be catastrophic both on a personal and societal level.

While much attention is given to the individual diseases that plague many seniors – arthritis, cancer, Alzheimer's, osteoporosis, heart disease, and others, this recent study highlights the need to address the common risk factor for all of these maladies: the aging process itself. Slowing the aging process and preventing the diseases associated with aging is quickly moving into the realm of possibility. Those who fund biomedical research – whether it be the government, foundations or philanthropic individuals – should consider the benefits that exist from focusing on this endeavor.



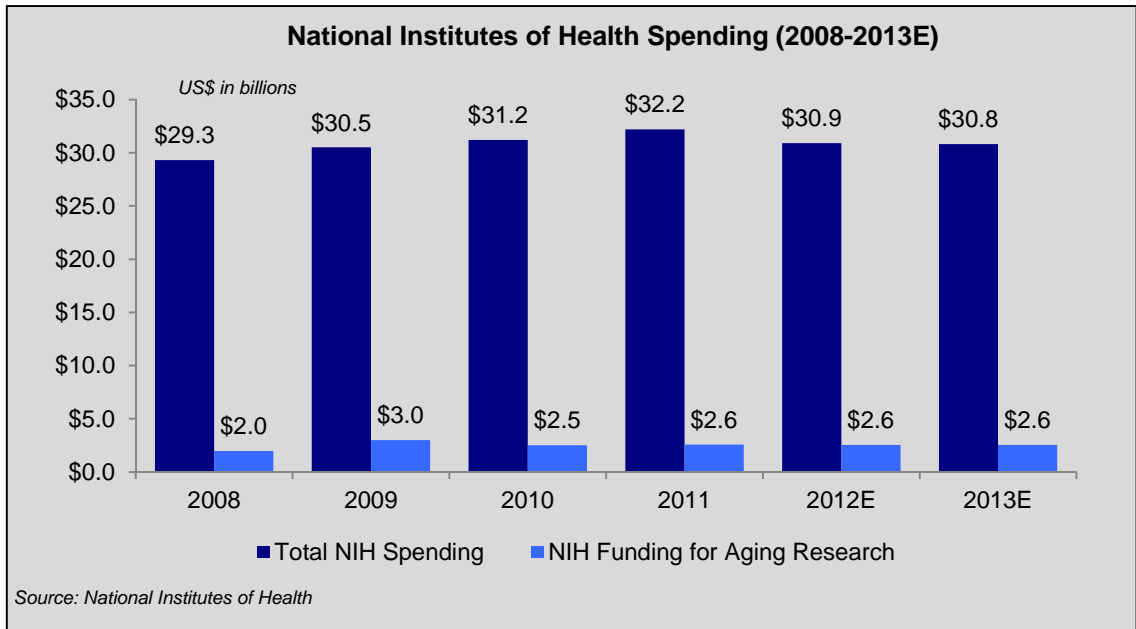
Brian Kennedy, PhD, CEO & President at the Buck Institute

Modern science has proven it is possible to extend mammalian lifespan: in the last three decades researchers have altered genes in lower organisms to extend life and, more recently, found drugs which cause animals like mice to live longer. There is no reason it should not be possible to extend lifespan in humans modestly using these or other approaches.

Here is the point: therapeutic approaches that extend *lifespan* in animal models also extend *healthspan*, the disease-free and functional period of life. Longer-lived animals get diseases later. Not only is aging research worth pursuing, it may be the only approach which addresses the fundamental reality that aging itself is the greatest risk factor for most highly prevalent chronic diseases.

One institution which leads the way in researching opportunities and solutions related to aging is the Buck Institute. Colleagues at other research organizations would agree that this goal is achievable yet the promise of aging research is not well known. This is reflected in how research dollars are allocated by the National Institutes of Health (“NIH”) as only a small fraction of the money goes to aging research. This approach is misguided. Everyone laments the lack of preventive medicine in this country; since aging is the single largest risk factor for many diseases, slowing aging could be the most effective prevention. Yet we cannot know whether this assertion is correct without devoting the resources.

Traditionally, medical research funded by the NIH and other major sources has sought primarily to treat disease. There has been enormous success with this approach, so much so that we are experiencing a lethal-to-chronic disease transition, with patients surviving many diseases much longer. Of course, the patients then have to deal with the ongoing, sometimes painful consequences, of living with disease and its treatment. By contrast, the ultimate “treatment” is prevention: by understanding the relationship between aging and disease, and by learning how to postpone chronic disease through healthy aging, it may be possible to extend *lifespan* modestly and extend *healthspan* enormously.



Ask people if they want to live longer and many will say no. They have watched their grandparents get old and suffer the consequences of age-related disease. Why live longer when you cannot get up, have chronic pain, and forget what you were saying five minutes ago? Here is where the anti-aging approach holds so much promise. It makes sense. If aging is a cause of disease, slowing aging will be the ultimate disease prevention. It is not the fountain of youth, but it is an investment worth pursuing.

Brian Kennedy, Ph.D, is CEO and President of the Buck Institute and has an international reputation for his work in the basic biology of aging. He became the Buck Institute’s second CEO in July 2010, coming from the University of Washington in Seattle where he served in the Department of Biochemistry.

Dr. Kennedy has served on the National Institutes of Health Cellular Mechanisms of Aging and Development study section since 2006, and on the grant review committee for American Federation for Aging Research Grants since 2006. He has published more than 60 manuscripts in prestigious journals including Cell, Nature, Science, and the Proceedings of the National Academy of Sciences. He has been an Associate Editor for the Journal of Gerontology since 2006, and also serves as a consultant for biotech and pharmaceutical companies.

Dr. Kennedy earned his Ph.D in Biology from the Massachusetts Institute of Technology.

Recent Lincoln International Healthcare Sector Transactions

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About Lincoln International

Lincoln International specializes in merger and acquisition advisory services, debt advisory services, private capital raising and restructuring advice on mid-market transactions. Lincoln International also provides fairness opinions, valuations and pension advisory services on a wide range of transaction sizes. With fourteen offices in the Americas, Asia and Europe, Lincoln International has strong local knowledge and contacts in key global economies. The firm provides clients with senior-level attention, in-depth industry expertise and integrated resources. By being focused and independent, Lincoln International serves its clients without conflicts of interest. More information about Lincoln International can be obtained at www.lincolninternational.com.

Lincoln Healthcare Focus

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Diagnosics & Research Tools	Diagnostic Systems; Diagnostic Equipment; Assays; Research Equipment; Research Instruments; Laboratory Services; Research Services; Diagnostic Supplies; Consumables
Outsourcing Services	Analytical Lab; Contract Research; Process Development and Design; Contract Manufacturing; Marketing Services; Contract Device Services; Clinical Site Management; Regulatory and Reimbursement
Healthcare Business Services	Emergency Department Management; Contract Behavioral; Business Process Outsourcing; Rental Distribution; Outcomes Management; Wellness and Population Health; Healthcare IT; Employer Services; Institutional Care Outsourcing

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