

International Conference on

# Aging & Gerontology

August 8-9, 2016 Las Vegas, USA

## DEREGULATED SEPARATION OF CENTROMERE'S IN ALZHEIMER'S DISEASE

**Lada Zivkovic\***

\*University of Belgrade, Serbia

Chromosomal alterations as a sign of genetic instability are a feature of Alzheimer disease. The importance of genetic instability in cells of Alzheimer disease patients that are not neurons are equally important for possible diagnostic purposes and monitoring the progress of the disease. Premature centromere division (PCD) represents a loss of control over the sequential separation and segregation of chromosome centromeres. Considering the importance of X chromosome alterations in the possible etiology of AD females, we used fluorescent in situ hybridization (FISH) for the centromere region of the X chromosome. We found a significant increase in the PCD,X in Interphase nuclei of frontal cerebral cortex neurons from sporadic AD. Considering the fact that it has been well-documented that neurons in AD can re-enter into the cell division cycle, our findings advance the hypothesis that deregulation of the cell cycle may contribute to neuronal degeneration and subsequent cognitive deficits in AD. Additionally, we also determined marked and significant increase in the frequency of the PCD,X and aneuploidy in peripheral blood lymphocytes in AD, with strong correlation between two phenomena. Therefore, our results support the view that AD is a generalized systematic disease where PCD is to be considered as a stable sign of disease leading to aneuploidy, and may be useful as a physiological biomarker that can be used for disease diagnosis.

[lada@pharmacy.bg.ac.rs](mailto:lada@pharmacy.bg.ac.rs)

## THE LARGEST UNPAID HEALTHCARE WORKFORCE YOU'VE NEVER HEARD OF IS GOING DIGITAL

**Meg FitzGerald\***

\*New York Medical College, USA

“The Largest Unpaid Healthcare Workforce you’ve Never Heard of Is Going Digital” explores the seemingly unnatural connection between caregiving and technology in an era of an aging, yet connected, population being cared for by an array of family members and healthcare workers.

With some estimates as high as 66 million, informal caregivers may be the largest healthcare workforce you’ve never heard of. According to the AARP seminal work on “Valuing the Invaluable” about 40 million family caregivers in the U.S. provided an estimated 37 billion hours of care to an adult with limitations in daily activities. The business model for paying caregivers today is complex but evolving. Chronic care among the U.S. population comprises a disproportionate share of total healthcare spending close to 86%. This chronic care market represents an opportunity to reduce healthcare spend.

A lot of the technology energy is coming from the constructs of the Affordable Care Act and the Centers for Medicare and Medicaid’s policies around value-based care, with reimbursement being tied to quality and outcomes. These objectives have a force multiplier effect on all stakeholders caring for a chronic patient, encouraging the adage of right care, right time and right place. The right combination of human touch and technology can make a meaningful difference.

Jonathan Rauch called caregivers “the invisible army” of our healthcare system. It is increasingly evident that those organizations that align themselves with the needs of caregivers will increase their chances of achieving quality measures at the lowest cost.

[Megrx@aol.com](mailto:Megrx@aol.com)