

THE SCIENCE OF AGING

*an Institute on
Aging publication*

SUMMER
2018

THE 2018 SYLVAN M. COHEN ANNUAL RETREAT



Left to right: Hans-Peter Kohler, PhD, John Q. Trojanowski, MD, PhD, Kenneth Langa, MD, PhD, Irma T. Elo, PhD, and Courtney Boen, PhD.

Following the talks, the annual poster session and reception took place in the Smilow Center Lobby offering small bites and refreshments to guests as they browsed the 40+ research posters on display.

Posters ranged in category from Basic Science and Clinical Research to Education, Community, & Other Research with a wide variety of aging-related topics. Prizes were awarded to the best posters in each category (*see pg. 2 for winners.*)

For more on the 2018 Sylvan M. Cohen Annual Retreat and Poster Session, including a video interview with Dr. Langa, full lectures, and additional photos, visit: www.penninstituteonaging.wordpress.com

On May 1, 2018, the Institute on Aging (IOA) at the University of Pennsylvania hosted its 2018 Sylvan M. Cohen Annual Retreat and Poster Session in partnership with Penn's Population Aging Research Center (PARC). This year's theme was "Impact of Life Course Exposures on Aging: Longevity reflects our experiences from day to day," and featured a keynote presentation by Kenneth Langa, MD, PhD, Professor, Department of Internal Medicine and Health Management and Policy in the School of Public Health at University of Michigan.

In addition to Dr. Langa's lecture on trends in brain health and dementia prevalence in the United States and around the world, the event also featured three Penn Presenters; Hans-Peter Kohler, PhD, Professor of Demography, Courtney Boen, PhD, Assistant Professor of Sociology, and Irma T. Elo, Director of PARC and Associate Chair and Professor of Sociology. The presentations covered various topics on aging trends and how experiences in our daily lives affect the ways in which we age.



& POSTER SESSION

... more inside!

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PA Governor Ed Rendell, treated for Parkinson's Disease at Penn

Avoiding Heat Stress in High Summer Temps

Rethinking Neurodegenerative Disease Treatment

ABOUT THE IOA:

The mission of the Institute on Aging (IOA) at the University of Pennsylvania is to improve the health of older adults by increasing the quality and quantity of clinical and basic research as well as educational programs focusing on normal aging and aging-related diseases across the entire Penn campus.

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 **Institute on Aging**
UNIVERSITY OF PENNSYLVANIA



FORMER PA GOVERNOR ED RENDELL

REVEALS **PARKINSON'S DISEASE** DIAGNOSIS; TREATED AT PENN

Former Pennsylvania Governor, Ed Rendell, age 74, recently revealed he has Parkinson's disease, three years after being diagnosed at Penn Medicine. Finally ready to share his story, the Governor made the announcement at a press conference at Pennsylvania Hospital alongside Penn's Matthew Stern, MD, director emeritus of the Parkinson's Disease and Movement Disorder's Center, Amy Gutmann, University of Pennsylvania President, and other Penn officials.



Matthew Stern, MD and Governor Rendell | Photo credit: Penn Medicine News

"The reason I'm going public today, I want to send a message," said Gov. Rendell, quoted in Philly.com. "Get in to see a doctor, get a diagnosis, and get treatment. Parkinson's disease is not a death sentence."

The Governor first came to Penn Medicine with some troubling symptoms including a tremor, and soon learned he indeed had Parkinson's disease. While he was not ready to share his story in the beginning, his decision to make his diagnosis public is helping to shine a light on what a Parkinson's diagnosis really means.

Roughly 1 million people are living with Parkinson's disease in the United States, making it the second most common neurodegenerative disease. However, despite its prevalence, misconceptions about the disease persist.

For example, while there are genetic forms of Parkinson's, most patients do not actually carry

one of the genes, showing that other factors are at play.

Additionally, many assume that Parkinson's is only a movement disorder. The truth is that other non-motor symptoms are common, such as sleep disorders, depression, bladder symptoms, fatigue, and limb pain. The good news is that many of these symptoms are treatable.

"Many patients worry that their life is over, and the truth is that it's not," said Stern. "With a personalized, comprehensive treatment approach, involving a mix of medications, exercise, and other ancillary health services, patients can continue living their lives."

For the full Penn Medicine News story, visit: <https://www.pennmedicine.org/news/news-blog/2018/june>

**"Get in to see a doctor,
get a diagnosis, and
get treatment."**

FROM TOP TO BOTTOM:

1st PLACE BASIC SCIENCE: "Regulation of Histone Dynamics and aging Mechanisms by Rap1" | Authors: Shufei Song (presenter), William Svitko, Javier Perez, F. Brad Johnson | Affiliation: Biochemistry and Molecular Biophysics; Department of Pathology and Laboratory Medicine

2nd PLACE BASIC SCIENCE: "Loss of mGluR Signaling exacerbates age-related sleep loss and reduces lifespan" | Authors: Sarah Ly (presenter), Nirinjini Maidoo | Affiliation: Neuroscience Graduate Group

1st PLACE CLINICAL RESEARCH: "Susceptibility to dementia and resilience to Alzheimer's pathology in the oldest-old" | Authors: John L. Robinson (presenter), Maria M. Corrada, Gabor G. Kovacs, Myrna Dominique, Carrie Caswell, Sharon Xie, Virginia M.-Y. Lee, Claudia H. Kawas, and John Q. Trojanowski | Affiliation: Center for Neurodegenerative Disease Research (CNDP)

2nd PLACE CLINICAL RESEARCH: "When Caregiving Ends: The Experiences of Former Family Caregivers of People with Dementia" | Author: Kristin Corey (presenter) | Affiliation: NewCourtland Center for Transitions and Health

1st PLACE EDUCATION, COMMUNITY, & OTHER RESEARCH: "Cross-National Differences in Cognitive Aging" | Author: Jordan Weiss | Affiliation: Population Studies Center

2nd PLACE EDUCATION, COMMUNITY, & OTHER RESEARCH: "Comparing Sleep Variables Across Clinical Dementia Rating Scale Scores" | Authors: Sonia Talwar (presenter), Miranda V. McPhillips, Quratul-Ain Kaiser, Justine Sefcik, Laurel Caffee, Nancy Hodgson | Affiliation: School of Nursing

AVOID **HEAT STRESS**

As Temperatures Rise, So Does Your Risk For Heat-Related Illness

**DRINK LOTS OF WATER + AVOID
CAFFEINE & ALCOHOL.**

STAY COOL. TAKE A COOL SHOWER OR BATH, TURN ON AIR CONDITIONING OR VISIT SOMEWHERE THAT OFFERS IT, LIKE A NEIGHBOR’S HOUSE OR PUBLIC LIBRARY, AND WEAR LOOSE, LIGHT-COLORED CLOTHING.

AVOID THE SUN + WEAR SPF 15 OR GREATER.

PACE YOURSELF. REST OFTEN IN COOL OR SHADED AREAS + LIMIT PHYSICAL ACTIVITY.

EAT LIGHTLY. AVOID HOT FOODS AND HEAVY MEALS, LIMIT USE OF YOUR STOVE AND OVEN, AND EAT COOL FOODS LIKE FRUITS AND VEGGIES.

Tips courtesy of: www.pccares.org

Rethinking Neurodegenerative Disease Treatment: Target Multiple Pathological Proteins, Not Just One

Nearly all major neurodegenerative diseases – from Alzheimer’s to Parkinson’s – are defined and diagnosed by the presence of one of four proteins that have gone rogue: tau, amyloid-beta (A β), alpha-synuclein (α -syn), or TDP-43. As such, investigational drugs and studies aimed at preventing or slowing the disease often hone in on just one of these respective proteins. However, targeting multiple proteins—known as “proteinopathies”—at once may be the real key, according to a recent study published in *Brain* by Penn Medicine researchers.

These so-called “proteinopathies”—misfolded proteins that accumulate and destroy neurons—co-exist in varying degrees across all of the different neurodegenerative disorders and may instigate each other to drive disease severity in many aging patients. The prevalence of these co-

pathologies suggests that each disease may ultimately require combination therapy targeting multiple disease proteins, and not just a single therapy, in patients with both early and later-stage disease.

“Historically, the focus of most clinical trials has been on targeting the primary pathological proteins of a given neurodegenerative disease such as deposits of tau and A β for Alzheimer’s disease, but we see now that many of these disease-related aggregated proteins affect most older patients across a full spectrum of clinical and neuropathological presentations,” said senior author John Q. Trojanowski, MD, PhD, professor of Pathology and Laboratory Medicine and director of the IOA. “This gives us additional leverage to find ways to detect patients’ specific proteinopathies with increasingly sophisticated biomarker and imaging technologies. This will allow us, and other researchers, to better match participants with specific targeted therapies in clinical trials.”

Read the full Penn Medicine News Release at: <https://www.pennmedicine.org/news/news-releases/2018/july>

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To support aging-related research & care at Penn’s Institute on Aging, please contact:
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PENN'S 5K FOR THE IOA | The Institute on Aging
& THE MEMORY MILE WALK

Sunday, September 23, 2018
8:00 am @ Penn Park
Shoemaker Green Entrance | On 33rd Street between Walnut & South Streets | Philadelphia, PA

- \$25 Before September 4th
- \$30 After September 4th
- \$35 Day of Race Sept 23rd
- \$20 with Penn Student ID
- Dogs on leashes are welcomed for Memory Walk only
- Online registration closes on September 18th at midnight
- Walk-up registration available race day at 6:30am - cash only

Support Alzheimer's and aging-related research and care at Penn's Institute on Aging (IOA)!



Register online at
PennMedicine.org/5kIOA

FREE PARKING • AWARDS • FREE FOOD • CHIP TIMING • FREE T-SHIRTS • #5KFORTHEIOA

