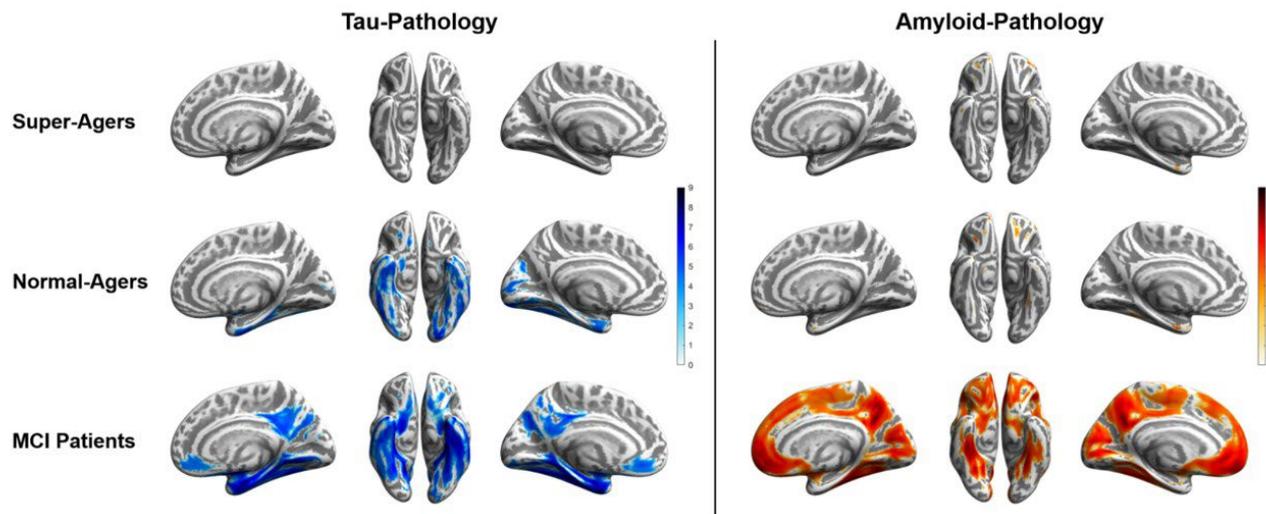


# SNMMI 2020 Virtual Conference Recognizes Leaders in Biomarker Research and Imaging

By Claudette Lew | Image of the year courtesy of SNMMI and Hoenig et al.



The SNMMI Henry N. Wagner Jr., MD, Image of the Year was awarded to a group of German researchers for their image submitted as part of Abstract 20, "Resistance to Tau and Amyloid Pathology Facilitates Super-Aging."

## Image of the Year

Each year at its annual conference, Society of Nuclear Medicine and Molecular Imaging (SNMMI) reviewers and society leadership select an image of the year that illustrates the most promising advances in nuclear medicine and molecular imaging. This year, the SNMMI Henry N. Wagner Jr., MD, Image of the Year was awarded to a group of German researchers for their image submitted as part of Abstract 20, "Resistance to Tau and Amyloid Pathology Facilitates Super-Aging."<sup>1</sup> Selected from more than two thousand abstracts submitted to the meeting, the image depicts "super-agers," which are older individuals with peak cognitive function and a resistance to the accumulation of tau and amyloid proteins, as compared to "normal-agers" and those displaying mild cognitive impairment (MCI). Based on their findings, the group of researchers concluded that the phenomenon of super-aging, or aging without cognitive impairment, appears to be associated with a resistance to tau and amyloid pathology, as is illustrated with the winning image. The images were acquired with positron emission tomography (PET) and using Avid Radiopharmaceuticals' Flortbetapir F 18

(<sup>18</sup>F-AV-45 or Flortbetapir) and Tauvid (Flortaucipir F18) biomarkers developed to help image distinctive characteristics of Alzheimer's disease in the brain.

Avid Radiopharmaceuticals, a wholly owned subsidiary of Lilly, developed the molecular imaging agents for imaging of  $\beta$ -amyloid deposits and to estimate the density and distribution of aggregated tau neurofibrillary tangles (NFTs) in the brain. Flortbetapir is produced and distributed throughout the United States by PETNET Solutions, Inc., a Siemens Healthineers company.

"The 2020 Image of the Year exemplifies the tremendous impact that Avid/Lilly and PETNET Solutions are having in making Flortbetapir and Flortaucipir available to researchers for evaluating patients for Alzheimer's disease and other causes of cognitive decline. We are excited about the potential for a significant increase in the use of these imaging agents as we get closer to the day when disease modifying therapies are available," says John Lister-James, Sr. Vice President, Chemical Development & Manufacturing at Avid Radiopharmaceuticals.



Siemens Healthineers' virtual booth at SNMMI 2020.

## Paper of the Year

Research from The University of Tennessee College of Medicine-Knoxville (UTCOM-Knoxville) and The University of Tennessee Medical Center (Knoxville, USA) in the non-invasive clinical detection of systemic amyloidosis using PET/CT imaging and a novel amyloid-reactive peptide radiotracer was selected for SNMMI's 2020 Paper of the Year.<sup>2</sup> The study evaluated safety, dosimetry and efficacy data on the first 20 patients from the ongoing Phase 1, first-in-human trial of iodine-124 labeled p5+14 in patients with systemic amyloidosis: a disease characterized by fibrillar amyloid deposits in organs such as the heart, liver, spleen, and kidneys. Currently, a systemic amyloidosis diagnosis can only be achieved through biopsy, inferences from anatomic imaging, or changes in serum and urine biomarkers. The researchers concluded the new tracer provided excellent visualization of amyloid-laden organs, notably the heart, liver, spleen, and kidney in patients with systemic amyloidosis, and noted it may provide a novel quantitative method for detecting and monitoring amyloid load.

"Receiving the Henry N. Wagner, Jr., MD, Best Paper Award is a great honor for our research team," says Jonathan S. Wall, PhD, Director of the Amyloidosis and Cancer Theranostics Program, UTKOM-Knoxville. "We have spent many years developing this new imaging agent for detecting systemic amyloidosis. This work has resulted in our ongoing Phase I/III clinical trial in Knoxville, results from which were described in this year's paper. The fact that this study has been recognized by the SNMMI is a testament to the incredible work of our multidisciplinary research team, and to the patients who have generously given their time to participate."

"At present it is very difficult to rapidly and accurately diagnose systemic amyloidosis due to the diverse presentation of the disease and how rare it is in the population. For many patients, diagnosis can take three years and often requires a visit to one of the few major amyloid centers in the United States. There are also no current FDA-approved agents for imaging systemic amyloidosis, thus there is a critical need. The agent we developed, <sup>124</sup>I-p5+14, can not only detect amyloid throughout the body but also



PETNET Solutions' virtual booth at SNMMI 2020.

provide quantitative data on the amyloid load in each organ. This information can be used to provide a definitive diagnosis, or serve to rule out the disease, and provide invaluable information regarding response to therapy when repeat imaging is performed. We anticipate that  $^{124}\text{I}$ -p5+14 PET/CT imaging will have a major impact on the management of patients with amyloidosis and as a result of earlier diagnosis, will improve patient outcomes.”

### Virtual Congress Success

Due to travel challenges related to COVID-19 and the current health environment, the 2020 SNMMI annual conference was held virtually, beginning on July 11, 2020. Siemens Healthineers, a gold-level and Science Pavilion sponsor, created an interactive virtual booth, showcasing Siemens Healthineers and PETNET Solutions. In addition to experiencing the companies' latest innovations, visitors could register to attend symposiums and expert talks as well as schedule 30-minute workstation demonstrations.

The virtual aspect of the meeting allowed for many more people to participate who might have

otherwise been unable. Siemens Healthineers sponsored two industry satellite symposia during the meeting which drew more than 1,000 attendees each. Acknowledged as a great success despite the inability to gather in person, the SNMMI 2020 virtual congress generated a buzz of activity, from social media to live and on-demand requests for content, and SNMMI reported 9,000 registrants attended this year's virtual event. SNMMI 2020 content continues to be available on demand. ●

### References

- 1 Hoenig M, Bischof G, Willscheid N, van Eimeren T, Drzezga A for the Alzheimer's Neuroimaging Initiative. Resistance to Tau and Amyloid Pathology Facilitates Super-Aging. *J Nucl Med.* 2020;61(1):20.
- 2 Wall J, Martin E, Stuckey A, et al. Clinical Detection of systemic amyloidosis by PET/CT imaging using  $^{124}\text{I}$ -p5+14 peptide. *J Nucl Med.* 2020;61(1):172.

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