Johannes Czernin, MD, editor-in-chief of The Journal of Nuclear Medicine (JNM), and his associate editors and editorial board announced in April the articles chosen as the most outstanding contributions to the journal appearing in 2020. The JNM Editors’ Choice Awards were presented in June as part of the SNMMI Annual Meeting. Awarded articles are selected by the associate editors by anonymous vote. “Along with my colleagues on the editorial board, I am pleased to recognize these contributions as outstanding in a challenging year for clinicians and researchers, as well as for scientific journals,” said Czernin. “Submissions to JNM remained not only strong and of extraordinarily high quality in 2020 but represented the expanding scope of nuclear and molecular techniques across the spectrum of diagnosis, therapy, and theranostics. The articles selected for these awards represent the future of our field.”

In the category of Best Clinical Article, the award went to researchers from University Hospital Heidelberg (Germany) for “Patients resistant against PSMA-targeting α-radiation therapy often harbor mutations in DNA damage-repair–associated genes” (J Nuc1. Med. 2020; 61:683–688). The authors include Clemens Kratochwil, Frederik L. Giesel, Claus-Peter Heussel, Daniel Kazdal, Volker Endris, Cathleen Nientiedt, Frank Bruchertseifer, Maximilian Kippenberger, Hendrik Rathke, Jonas Leichsenring, Markus Hohenfellner, Alfred Morgenstern, Uwe Haberkorn, Stefan Duensing, and Albrecht Stenzinger.

In the category of Best Basic Science Article, the award went to researchers from the University of California–Davis (CA) for “Total-body PET and highly stable chelators together enable meaningful 89Zr-antibody PET studies up to 30 days after injection” (J Nucl Med. 2020;61:453–460). The authors were Eric Berg, Herman Gill, Jan Marik, Annie Ogasawara, Simon Williams, Guus van Dongen, Daniëlle Vugts, Simon R. Cherry, and Alice F. Tarantal. This contribution, with relevance to the latest instrumentation and to imaging foci of global interest, was also named the best overall article in JNM for 2020.

“A presentation on longer-term outcomes of 225Ac-DOTA-TE–targeted α therapy in patients with advanced-stage somatostatin receptor-expressing metastatic gastroenteropancreatic neuroendocrine tumors (GEP NETs) was named as the Henry N. Wagner, Jr., MD, Paper of the Year on June 15 at the SNMMI Annual Meeting. Bal et al. from the All India Institute of Medical Sciences (New Delhi) presented results that not only emphasized the promise and success of targeted α therapies but also reflected growing global interest in these life-extending treatments.

The study included 82 GEP NET patients (35 women, 47 men; mean age, 50.7 ± 11 years; range, 25–74 years), of whom 26 (32%) had no prior peptide-receptor radionuclide therapy, 25 (30%) showed stable disease after 177Lu-DOTATATE therapy, and 31 (38%) had progressed on 177Lu-DOTATATE therapy. Participants were treated with a median of 5 225Ac-DOTATATE targeted α therapy cycles. Over a median follow-up of 17 months, 10 patients experienced disease progression and 20 died. Using PERCIST criteria in 77 patients, a sustained complete response was seen in 1 (1.2%) patient, partial response in 33 (43%), stable disease in 35 (45.4%), and progressive disease in 6 (8%). Two patients initially experienced a complete response but showed disease recurrence at a median follow-up of 12 months after therapy. Toxicities and adverse effects were quite low. The authors concluded that “Our long-term results demonstrate 225Ac-DOTATATE safe with transient, low-grade side-effects. 225Ac-DOTATATE demonstrated high response rates, improved quality of life and prolonged the progression and overall survival in end-stage GEP NET patients.”