Each month the editor of Newsline selects articles on diagnostic, therapeutic, research, and practice issues from a range of international publications. Most selections come from outside the standard canon of nuclear medicine and radiology journals. These briefs are offered as a monthly window on the broad arena of medical and scientific endeavor in which nuclear medicine now plays an essential role. The lines between diagnosis and therapy are sometimes blurred, as radiolabels are increasingly used as adjuncts to therapy and/or as active agents in therapeutic regimens, and these shifting lines are reflected in the briefs presented here. We have also added a small section on noteworthy reviews of the literature.

PET/CT in Prosthetic Valve Endocarditis

In an article e-published on April 10 ahead of print in the *Journal of the American College of Cardiology*, Saby et al. from the Hôpital de la Timone and Aix-Marseille Université (France) reported on a study designed to assess the value of ^{18}F-FDG PET/CT in the diagnosis of prosthetic valve endocarditis (PVE). The study included 72 patients with suspected PVE, all of whom underwent clinical, microbiologic, and echocardiographic evaluation as well as cardiac PET/CT at admission. For each patient a final diagnosis was made according to clinical and/or pathologic modified Duke criteria as assessed during a 3-mo follow-up. PET/CT showed abnormal ^{18}F-FDG uptake around the site of the prosthetic valve in 36 (50%) patients, with sensitivity, specificity, positive and negative predictive values, and global accuracy of 73%, 80%, 85%, 67%, and 76%, respectively. By adding the presence of abnormal ^{18}F-FDG uptake around the prosthetic valve as a major criterion, the sensitivity of the modified Duke criteria at admission was significantly increased (from 70% to 97%). The addition of the uptake criteria resulted in a significant reduction in the number of possible PVE cases, from 40 (56%) to 23 (32%). The authors concluded that "the use of ^{18}F-FDG PET/CT is helpful for diagnosing PVE" and that these study results "support the addition of abnormal FDG uptake as a novel major criterion for PVE."

Journal of the American College of Cardiology

Repeatability of ^{68}Ga-DOTATOC PET in NETs

Menda et al. from the University of Iowa Carver School of Medicine (Iowa City) reported on April 12 ahead of print in *Pancreas* on a study to determine the repeatability of ^{68}Ga-DOTATOC PET in neuroendocrine tumors. The study included 5 patients with NETs, who each underwent ^{68}Ga-DOTATOC PET imaging 2 times within a 5-d period. The comparability of maximum and mean standardized uptake values (SUV_{max} and SUV_{mean}) and kinetic parameters (K-Patlak and K-influx) of target lesions was assessed. Results showed excellent repeatability for SUV_{max}, SUV_{mean}, and K-Patlak, with only slightly less repeatability for K-influx. The median absolute percent differences between the 2 scans for SUV_{max} and SUV_{mean} were 7.4% and 9.3%, respectively. The median absolute percent differences for K-Patlak and K-influx were 12.5% and 29.9%, respectively. SUV_{max} differences for target lesions were consistently $<25\%$ between the 2 scans. The authors concluded that ^{68}Ga-DOTATOC PET imaging of NETs is highly reproducible and that a difference of $>25\%$ in SUV_{max} "represents a change that is larger than the measurement error observed on repeated studies and should reflect a significant change in the biological character of the tumor."

Pancreas

^{18}F-FDDNP PET in Progressive Supranuclear Palsy

In an article e-published on April 11 ahead of print in the *Journal of Alzheimer's Disease*, Kepe et al. from the University of California at Los Angeles looked at in vivo ^{18}F-FDDNP labeling of tau fibrillar aggregates in brain neuropathology in patients with progressive supranuclear palsy (PSP). PSP typically lacks amyloid-β deposits. The study included 15 patients with PSP who underwent ^{18}F-FDDNP PET. Imaging results were compared with a group of recently diagnosed Parkinson disease patients and a group of age-matched controls with no neurodegenerative symptoms. Data comparison points were ^{18}F-FDDNP distribution volume ratios, in reference to cerebellar gray matter, for cortical and subcortical areas. In both the PSP and early Parkinson disease groups, ^{18}F-FDDNP binding was seen in subcortical areas (striatum, thalamus, subthalamic region, midbrain, and cerebellar white matter) regardless of disease severity, with progressive subcortical and cortical involvement increasing with disease severity. These patterns of tracer binding were consistent with the known pathology distribution for PSP. However, high midbrain and subthalamic tracer binding was distinctive for PSP subjects but not for controls or patients with Parkinson disease. The authors concluded that these findings provide evidence that "^{18}F-FDDNP is a sensitive in vivo PET imaging probe to map and quantify the dynamic regional localization of tau fibrillar aggregates in PSP." They added that "^{18}F-FDDNP PET may provide a tool to detect changes in tau pathology distribution either associated with disease progression or as a treatment biomarker for future tau-specific therapies" and that "patterns of ^{18}F-FDDNP binding may also be useful in diagnosis in early in disease presentation when clinical distinction

among neurodegenerative disorders is often difficult."

Journal of Alzheimer's Disease

Pretransplantation PET/CT and Lymphoma

Cohen et al. from The Ohio State University (Columbus) reported on April 15 ahead of print in *Bone Marrow Transplantation* on a study assessing the prognostic value of pretransplantation PET/CT in patients with mantle cell lymphoma. The study included 29 such patients, all of whom underwent PET/CT before autologous stem cell transplantation. Seventeen patients were classified as PET/CT-negative and 12 as PET/CT-positive. On average, PET/CT-positive patients were younger, had lower Mantle Cell Lymphoma International Prognostic Index scores, and had bulky adenopathy >5 cm greater than the PET/CT-negative group. Over a median follow-up of 27 mo (range, 5–55 mo), 4 PET/CT-negative and 3 PET/CT-positive patients relapsed. Two additional patients in the PET/CT-positive group died during this period without a documented relapse. Estimated 2-y progression-free survival was 64% for the PET/CT-positive and 87% for the PET/CT-negative groups. Estimated 2-y overall survival was 60% for the PET/CT-positive and 100% for the PET/CT-negative groups. The authors concluded that "a positive pretransplant PET/CT is associated with a poor prognosis in patients with mantle cell lymphoma." They added that, given the fact that several PET/CT-positive patients remained in remission at the time the report was prepared, "additional factors may impact the prognostic value of PET/CT."

Bone Marrow Transplantation

PET/CT and EBRT in Prostate Cancer

In an article in the April issue of *Current Oncology* (2013;20:104–110), Amanie et al. from the Cross Cancer Institute (Edmonton, Canada) looked at the ability of serial ^{11}C-choline PET/CT to assess changes in prostate cancer treated with external-beam radiation therapy. The study included 11 men with intermediate-risk prostate cancer who underwent ^{11}C-choline PET/CT imaging before and at 4 and 8 wk and 1, 2, 3, 6, and 12 mo after radiation treatment. Average maximum standardized uptake value (SUV_{max}) in prostate tissue at baseline was 4.0 ± 0.4; this decreased to 2.9 ± 0.1 at 8 wk. The decline continued at 2 mo (2.3 ± 0.3) and 12 mo (2.2 ± 0.2). Similar declines were seen in tumor-to-muscle ratios. The authors noted that although intraprostatic ^{11}C-choline uptake in the 11 analyzed prostate cancer patients significantly declined during and after external-beam radiation therapy, that the prognostic value of these early changes has not been established. They called for future studies "to correlate changes in ^{11}C-choline uptake parameters with long-term biochemical recurrence to further evaluate ^{11}C-choline PET changes as a possible, but currently unproven, biomarker of response."

Current Oncology

SPECT Tracers and Epileptogenic Foci

Fujitani et al. from the Japanese Red Cross Nagoya First Hospital (Japan) reported on April 11 ahead of print in *Epilepsy Research* on a study of statistical mapping of interictal ^{123}I-iomazenil SPECT in temporal lobe epilepsy surgery. The researchers compared quantitative evaluations of ^{123}I-IMP, ^{99m}Tc-ECD, and ^{123}I-iomazenil effectiveness in identifying epileptogenic foci with SPECT. The study included data from 30 patients with mesial temporal lobe epilepsy. Statistical parametric mapping was performed, assessing abnormalities detected with each tracer in specific areas of the temporal lobes. They found that ^{123}I-IMP SPECT was significantly superior to ^{99m}Tc-ECD SPECT for lateralizing foci (identifying the correct hemisphere) and that ^{123}I-iomazenil SPECT was significantly superior to the other tracers in localizing foci within the hemispheres. The authors added that the applicability of these results in extratemporal lobe epilepsy remains to be explored.

Epilepsy Research

PET/MR and Plaque Inflammation Monitoring

In a study e-published on March 26 ahead of print in *Atherosclerosis*, Millon et al. from the Mount Sinai School of Medicine (New York, NY) looked at the ability of ^{18}F-FDG PET and iron contrast-enhanced MR imaging with a novel USPIO (P904) to assess changes in plaque inflammation induced by atorvastatin and dietary change in a rabbit model of atherosclerosis, using a combined PET/MR scanner. Rabbits underwent PET/MR imaging at baseline and were then divided into 2 groups: one with a high cholesterol diet (progression group) and one with a chow diet and administration of atorvastatin (regression group). Rabbits in both groups underwent a second PET/MR scan 6 mo after the initial scan. R2* relaxation rates for MR imaging were calculated, as were mean standardized uptake values (SUV_{mean}) over the abdominal aorta on PET. Imaging results were later correlated with histology sections. At baseline, all rabbits showed strong ^{18}F-FDG uptake and increases in R2* values in the aortic wall. At 6 mo, SUV_{mean} values in the regression group had decreased significantly, whereas those in the progression group remained constant. R2* values showed similar but less marked decreases in the regression group. PET- and MR-assessed changes also correlated well with macrophage density. The authors concluded that this "experimental study confirms the possibility to combine 2 functional imaging modalities to assess changes in the inflammation of atherosclerotic plaques," noting that ^{18}F-FDG-PET "seems to be more sensitive than USPIO P904 to detect early changes in plaque inflammation."

Atherosclerosis

PET/CT in Suspected Lung Cancer

Brocken et al. from Radboud University Nijmegen Medical Center (The Netherlands) reported on April 16 ahead of print in *Respiration* on a retrospective study assessing the diag-

nostic and efficiency performance of a rapid outpatient diagnostic program (RODP) including ^{18}F-FDG PET and contrast-enhanced CT to evaluate patients presenting with possible lung cancer. The study included 386 patients referred to a university RODP after abnormal chest radiography. Patients underwent either FDG and coregistered CT (in the earliest years reviewed) or hybrid PET/CT (in the later years of the review period). Timeliness of care and the ability of PET/CT to differentiate malignant from benign lesions were assessed. A total of 260 patients were diagnosed with lung cancer and 23 with another type of malignancy; benign disease was confirmed in 78 patients. In another 45 patients diagnoses were not confirmed at pathology, but benign outcomes were confirmed at a median follow-up of 24.5 mo. The sensitivity, specificity, negative and positive predictive values, and accuracy of PET/CT in differentiating lung cancer from benign disease were 97.7%, 60.2%, 92.5%, 84.0%, and 85.8%, respectively. Patients diagnosed with lung cancer had median referral, diagnosis, and therapeutic timing of 7, 2, and 19 d, respectively. The authors concluded that ^{18}F-FDG PET/CT "in an RODP setting for suspected lung cancer has high performance in detecting cancer and facilitates timely care."

Respiration

Modified ^{90}Y-Ibritumomab Regimen

In an article e-published on March 26 ahead of print in *Cancer Biotherapy and Radiopharmaceuticals*, Vaklayas et al. from the University of Alabama at Birmingham reported on a phase I study combining a single course of ^{90}Y-ibritumomab tiuxetan after a 4-wk course of rituximab in patients with relapsed or refractory low-grade or transformed CD20+ B-cell non-Hodgkin lymphoma with <25% marrow involvement. The purpose of the study was to attempt to reverse bone marrow infiltration with B-cells and optimize the biodistribution of the radioimmunotherapeutic agent. Doses escalated to 0.4 mCi/kg resulted in 80% grade-4 cytopenias, and dose escalation was halted. Additional patients were enrolled at 0.3 mCi/kg, which was well tolerated. The 0.4 mCi/kg group was then expanded, resulting in 33% grade-4 cytopenias. With the maximum tolerated dose of 0.4 mCi/kg, marrow involvement decreased in all patients, with complete clearance noted in 50% and an overall response rate of 82%. Over a median follow-up of 31.7 mo, median progression-free survival was 12.3 mo and time to next treatment was 10.9 mo. The authors cautioned that although this regimen was associated with a high response rate, hematologic toxicity was higher than with the standard ^{90}Y-ibritumomab tiuxetan treatment regimens.

Cancer Biotherapy and Radiopharmaceuticals

^{18}F-MISO PET/CT, Tumor Hypoxia, and RT

Tachibana et al. from the Kinki University Faculty of Medicine (Osaka-Sayama, Japan) reported on August 14 ahead of print in the *Journal of Radiation Research* on a prospective study of ^{18}F-fluoromisonidazole (^{18}F-MISO) PET/CT visualization of intratumoral hypoxic areas and reoxygenation before and during fractionated radiation therapy. The study included 10 patients (4 with head and neck cancers, 4 with gastrointestinal cancers, and 2 with uterine cancer) who underwent ^{18}F-MISO PET/CT before radiation therapy. Eight of these patients were reimaged during fractionated radiotherapy. Maximum standardized uptake values (SUV_{max}) of normal muscles and tumors were measured, and mean SUV_{max} ± standard deviation (SD) of normal muscles was calculated at 1.25 ± 0.17. Areas with SUV_{max} ≥1.60 SUV were regarded as hypoxic areas. Nine of the 10 tumors at initial imaging were hypoxic under this definition. All 8 tumors for which second imaging data were available showed decreases in SUV_{max}, tumor-to-muscle ratio, and/or percentage of hypoxic volume at ~20 Gy, indicating reoxygenation. In most tumors in the study, this reoxygenation could be quantified by ^{18}F-MISO PET/CT at 2 wk of fractionated radiation therapy.

Journal of Radiation Research

Evaluating a Novel Reporter Gene/Probe System

In an article e-published on April 12 in *PLoS One* (2013;8:e61911) Qin et al. from the Huazhong University of Science and Technology (Wuhan, China) reported on preliminary studies assessing the feasibility of a reporter gene/probe system for monitoring gene and cell therapy. The authors described the development and construction of a recombinant adenovirus vector carrying a reporter gene (hERL) and a therapeutic gene (vascular endothelial growth fact 165), radiolabeled with ^{18}F-fluoro-17β-estradiol (^{18}F-FES). Initial studies were conducted, as well as studies verifying that the reporter gene could reflect the therapeutic gene indirectly. The authors concluded that these preliminary in vitro and in vivo studies "confirmed that hERL/^{18}F-FES might be used as a novel reporter gene/probe system for monitoring gene and cell therapy" and that "this imaging platform may have broad applications for basic research and clinical studies."

PLoS One

^{18}F-FDG Effects on Bone Studies

Kim et al. from the Wonkwang University School of Medicine (Iksan, Republic of Korea) reported on April 3 ahead of print in the *Journal of Clinical Densitometry* on a study looking at the effect of prior administration of ^{18}F-FDG for PET imaging on subsequent bone mineral density and body composition analyses by dual-energy X-ray absorptiometry (DXA). The study included 30 patients in whom DXA assessment of bone mineral density and body composition was performed twice, once before and once after an ^{18}F-FDG PET study. Bone mineral density values showed decreases in

the second DXA study, with the decrease in whole-body bone mineral density levels identified as most significant. Whole-body fat mass increased significantly and whole-body lean body mass decreased significantly after injection of ^{18}F-FDG. The authors concluded that these findings suggest that "when both ^{18}F-FDG PET and DXA measurements for whole-body composition are performed in close-time proximity, ^{18}F-FDG PET scans should follow the DXA measurement." They added that bone mineral density measurements of total femur or lumbar spine could be followed by ^{18}F-FDG PET in close time proximity.

Journal of Clinical Densitometry

^{123}I-FP CIT SPECT and DLB

In an article published online on April 8 in *BMJ Open*, Siepel et al. from Stavanger University Hospital (Norway) reported on a longitudinal study of the utility of ^{123}I-FP CIT SPECT in suspected dementia with Lewy bodies (DLB). The study included 50 patients (27 men, 23 women; mean age at baseline, 74 y; range, 52–88 y), some of whom met the criteria for clinical DLB (group A, negative ^{123}I-FP CIT SPECT with DLB clinical features) and some of whom did not (group B, abnormal ^{123}I-FP CIT SPECT with no DLB clinical features). Study subgroups from groups A and B were selected for follow-up for a 2–5-y period. Participants underwent initial ^{123}I-FP CIT SPECT imaging and were assessed over the follow-up period with clinical rating scales for hallucinations, parkinsonism, fluctuations, and rapid eye movement sleep behavior disorder. For the 7 patients who were followed in group B, the frequency and severity of DLB symptoms, especially parkinsonism and cognitive fluctuations, increased, whereas the severity of visual hallucinations and REM sleep behavior disorder remained stable. Group A continued to meet the criteria for probable DLB at the end of follow-up. The authors concluded that these findings suggest that "systematic visual analyses of ^{123}I-FP-CIT SPECT can detect people with DLB prior to the development of the full clinical syndrome" and that "some patients fulfilling clinical criteria for probable DLB have a normal scan," indicating that additional studies are needed to more accurately characterize these patients.

BMJ Open

^{111}In-Capromabpendetide SPECT with MR in Prostate Cancer

Hardie et al. from the Medical University of South Carolina (Charleston) reported on April 18 ahead of print in the *World Journal of Urology* on a study of combined interpretation of ^{111}In-capromabpendetide SPECT including CT image fusion with MR diffusion-weighted imaging (DWI) for identification of prostate cancer in pelvic lymph nodes. The study enrolled 18 patients who had undergone staging with ^{111}In-capromabpendetide SPECT/CT, including 12 who had also undergone MR with DWI. All patients had available histopathology from lymph nodes removed at the time of radical prostatectomy. The performance of SPECT alone in identifying malignant lymph nodes was assessed and compared with results of combined readings of SPECT and MR imaging. SPECT alone was found to have a sensitivity of 40.0% and specificity of 96.7%; using the combined modality data resulted in a sensitivity of 88.9% and specificity of 98.5%. The authors concluded that "the addition of MR DWI to the interpretation of ^{111}In-capromabpendetide SPECT/CT may increase the sensitivity for detecting malignant lymph nodes in prostate cancer," adding that this combination may improve clinical evaluation of nodal disease in prostate cancer.

World Journal of Urology

Adding the Head to Routine ^{18}F-FDG PET/CT

In an article e-published on April 4 in *Frontiers in Oncology*, Abdelmalik from Saint Louis University (MO) reported on a study designed to assess the value of extending the base of skull-to-upper thigh field of view for routine ^{18}F-FDG PET/CT imaging in cancer patients to include the head. The retrospective study included 1,000 top of head-to-foot PET/CT images. Abnormalities above the base of the skull were sorted as unsuspected or known and then correlated with additional data from pathology, MR/CT imaging, and/or clinical follow-up. The authors found that 102 (10.2%) images included potentially significant findings above the base of the skull. Of these, 70 (69%) were known and 32 (31%) were unsuspected. Follow-up data were available in 25 of these 32 individuals, and abnormalities were confirmed in all 25 (78%). Of these 25 confirmed unsuspected findings, 4 were false-positives and 21 were true-positives. Of the true-positives, 13 were confirmed as metastatic, and 8 were benign. These unanticipated findings changed the management in 11 of 13 and staging in 4 of 13 patients. The authors concluded that "including the head in PET/CT field of view incidentally detected clinically significant findings in 2.1% (21/1,000) of patients," had a significant impact on patient management, and provided more accurate staging information.

Frontiers in Oncology

Accelerator-Produced ^{99m}Tc Imaging

Galea et al. from the National Research Council (NRC; Ottawa, Canada) reported in the May 7 issue of *Physics in Medicine and Biology* (2013;58:2737–2750) on a study comparing SPECT images using ^{99m}Tc derived from ^{99}Mo produced by an electron accelerator with those using ^{99m}Tc from commercial generator–produced ^{99}Mo. The NRC, like similar agencies in North America and Europe, has been under both government and public pressure to identify reliable supplies of medical radionuclides, a concern heightened over the past decade by serial interruptions in reactor production. For the accelerator-derived radionuclide, ^{100}Mo disks were irradiated with a 35-MeV electron beam, generating ~ 1,110 MBq of ^{99}Mo per disk. A NorthStar ARSII unit was used to separate the ^{99m}Tc, with an efficient separation typically >90%. Small animal

cardiac and bone SPECT images were acquired using both the accelerator- and generator-produced ^{99m}Tc, and images were of comparable quality. Delivery time for the accelerator-produced ^{99m}Tc (from the end of beam to end user delivery) was about 30 h. The authors concluded that "high-power electron accelerators are an attractive option for producing ^{99}Mo on a national scale."

Physics in Medicine and Biology

PET/CT and Distant Breast Cancer Mets

Hong et al. from the Anhui Medical University (Hefei, People Republic of China) reported on April 5 ahead of print in *Surgical Oncology* on a meta-analysis of the utility of ^{18}F-FDG PET/CT in diagnosis of distant metastases in breast cancer. Searching both the MEDLINE and EMBASE literature databases, the authors calculated sensitivities, specificities, likelihood ratios, and summary receiver operating characteristic curves for PET/CT. They also compared PET/CT and conventional imaging in those studies in which both were available in the same patients. In 1 cluster of 8 PET/CT studies including 748 patients, PET/CT sensitivity and specificity for distant metastases in breast cancer were 96% and 97%, respectively. In 6 studies (664 patients) in which direct comparisons were possible, PET/CT sensitivity and specificity were 97% and 95%, respectively, whereas the corresponding percentages for conventional imaging were 56% and 91%. The authors concluded that "compared with conventional imaging, ^{18}FDG PET-CT has higher sensitivity for diagnosis of distant metastases in breast cancer patients."

Surgical Oncology

T/LN SUV_{max} and NSCLC

In an article e-published on April 4 ahead of print in the *Journal of Cardiothoracic Surgery*, Koksal et al. from the Ataturk Chest Diseases and Chest Surgery Education and Research Hospital (Ankara, Turkey) reported on a study designed to determine the correlation of maximum standardized uptake value (SUV_{max}) with pathologic characteristics of primary tumors and to identify a tumor-to-lymph node (T/LN) SUV_{max} ratio that accurately predicts metastasis to lymph nodes in patients with resected non–small cell lung cancer (NSCLC). The retrospective study included the records of 81 patients with NSCLC who underwent PET/CT for initial staging before surgical resection. PET/CT was positive in 100 mediastinal or hilar lymph node stations. Variables assessed in the analysis included histologic and pathologic data (largest tumor diameter, tumor histology, differentiation, number of mitosis, degree of stromal inflammation, necrosis), and etiology of PET/CT-positive lymph node stations. SUV_{max} for primary tumors and positive lymph node stations were recorded. The authors calculated T/LN SUV_{max} ratios for each lymph node station. The SUV_{max} of the primary tumor was found to be positively correlated with the largest tumor diameter, number of mitoses, and postoperative pathologic stage. Patients who had squamous cell carcinoma were found to have significantly higher mean SUV_{max}, numbers of mitoses, and advanced N stages than did those with adenocarcinoma. The causes of PET/CT-positive lymph nodes were metastasis in 14, anthracosis in 40, reactive in 39, granulomatous in 4, and silicosis in 3 patients. A T/LN SUV_{max} ratio ≤ 5 was found to be suggestive of a malignant lymph node (sensitivity, 92.8%; specificity, 47%), which the authors indicated might be used as a predictor of metastases in this patient population.

Journal of Cardiothoracic Surgery

Assessing Focused Ultrasound with SPECT

Sanches et al. from Eindhoven University of Technology (The Netherlands) reported on April 6 ahead of print in the *Journal of Controlled Release* on real-time SPECT imaging and kinetic assessment of focused ultrasound–induced extravasation in skeletal muscle. The potential for ultrasound-mediated microbubbles in localized drug delivery across usually impermeable biologic barriers has been widely documented, although the exact mechanisms by which extravasation occurs are not fully understood. The authors used SPECT to image extravasation of ^{111}In-labeled bovine serum albumin, a model macromolecular drug, in mice treated with microbubbles and the application of focused ultrasound. Times between injection of the ^{111}In-labeled bovine serum albumin and focused ultrasound application were varied in the mice. Accumulation in muscle peaked at 30 min. Data from the study supported the authors' contention that microbubble and drug coinjection strategies show promise and emphasized the importance of molecular imaging strategies in validating and optimizing a range of novel treatment approaches.

Journal of Controlled Release

REVIEWS

Review articles provide an important way to stay up to date on the latest topics and approaches by providing valuable summaries of pertinent literature. The Newsline editor recommends several reviews accessioned into the PubMed database in April and May. In an article e-published on April 16 ahead of print in *Current Topics in Medicinal Chemistry* Sai et al. from the Washington University School of Medicine (St. Louis, MO) summarized the "Development of ^{18}F-labeled PET probes for imaging cell proliferation." In the same journal's April 16 online issue, Mease et al. from the John Hopkins University Medical Center described "PET imaging in prostate cancer: focus on prostate-specific membrane antigen." Leech et al. from King's College London (UK) provided an overview of "Whole-body imaging of adoptively transferred T cells using magnetic resonance imaging, single photon emission computed tomography and positron emission tomography techniques, with a focus on regulatory T cells" in the May issue of *Clinical and Experimental Immunology* (2013;172:169–177). In an article e-published on April 12 ahead of print in *Cancer Discovery*, Kocher and Piwnica-Worms from Wash-

ington University School of Medicine (St. Louis, MO) reported on "Illuminating cancer systems with genetically engineered mouse models and coupled luciferase reporters in vivo." Seidl and Essler from the Technische Universität München (Germany) reviewed "Radioimmunotherapy for peritoneal cancers" in the April issue of *Immunotherapy* (2013;5:395–405). In the same journal issue (2013;5:383–394), Jurcic, from Columbia University Medical Center (New York, NY), outlined "Radioimmunotherapy for hematopoietic cell transplantation."