combination with PET-only scanners for more than a decade. The impression given is that it is a novel concept to combine the 2 agents into a single study. It is not.

Second, the authors use a "bone mask" with which to "separate" skeletal uptake, assumed to be attributable to the ^{18}F-fluoride, from the soft-tissue uptake attributable to ^{18}F-FDG. They state "We successfully separated the metabolic skeletal uptake and allowed interpretation of the ^{18}F and ^{18}F-FDG tissue distribution, even though the 2 tracers were administered at the same time." This is nonsense. The authors acknowledge that "bone marrow–stimulating therapy" and soft tissue abutting bone, and therefore being included in the bone mask, may confound this separation by including some ^{18}F-FDG in the skeletal images. However, it is well established that osteoblastic and osteolytic lesions display different uptake patterns with ^{18}F-FDG, with lytic lesions in bone demonstrating high ^{18}F-FDG uptake (*2*). Indeed, Cook and Fogelman have previously reported the combined use of ^{18}F-FDG and ^{18}F-fluoride in numerous publications and texts (*3,4*). Further, from a purely scientific point of view, their assertion could be substantiated only if they performed both separate and simultaneous PET scans with the 2 tracers to see how many lesions were seen in the skeleton with ^{18}F-FDG.

It is disappointing to see such a flawed and naïve piece of work published in what is an otherwise excellent journal.

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REPLY: We read the letter to the editor by Dr. Dale Bailey regarding our recently published article (*1*). We strongly disagree with the ideas expressed by Dr. Bailey for the reasons listed below.

In regard to the first objection raised by Dr. Bailey, we reaffirm that our work is indeed the first report that we know of on the use of combined PET/CT to image the distribution of combined ^{18}F-fluoride and ^{18}F-FDG for evaluation of malignancy. The reference by Hoegerle et al. (*2*) cited in our discussion is the only previously published report we know of on the combined administration of ^{18}F-fluoride and ^{18}F-FDG followed by PET (no CT). However, that administration was performed to anatomically localize ^{18}F-FDG uptake based on the preferential skeletal uptake of ^{18}F-fluoride, not to evaluate soft-tissue and skeletal lesions in a single imaging examination. Furthermore, in the study by Hoegerle et al. the images obtained after combined administration of ^{18}F-fluoride and ^{18}F-FDG were not compared with separate ^{18}F-fluoride and ^{18}F-FDG scans for each subject. Instead, 30 patients underwent only ^{18}F-FDG PET, whereas a different 30 patients underwent combined ^{18}F-FDG and ^{18}F-fluoride PET. The key value of CT could not be studied by Hoegerle et al. since at that time combined PET/CT scanners were not available. We performed a detailed prospective clinical study in which each patient had an ^{18}F-fluoride study alone, an ^{18}F-FDG study alone, and a cocktail ^{18}F-fluoride–^{18}F-FDG study. This approach required 3 PET/CT scans for each patient and was critical to moving forward in validating the utility of our novel strategy.

Related to the statement that our text ("We successfully separated the metabolic skeletal uptake and allowed interpretation of the ^{18}F and ^{18}F-FDG tissue distribution, even though the 2 tracers were administered at the same time.") is "nonsense," we simply disagree. Perhaps we could have made it clearer that certain focal skeletal uptake of ^{18}F-fluoride or ^{18}F-FDG, in conjunction with CT abnormalities, denotes osseous metastases. We do not think this will be a universal approach for cancer detection (as we discussed in the paper), but the approach will certainly work in selected patients. It was exactly "from a purely scientific point of view" that we did we perform both separate and simultaneous PET scans with the 2 tracers in all subjects. Based on the visual analysis and comparison of these 3 separate scans, we noted that only 1 skull lesion seen on an ^{18}F-fluoride scan was missed on the corresponding combined ^{18}F-fluoride–^{18}F-FDG scan, whereas all lesions seen on ^{18}F-FDG PET/CT were also detected on the ^{18}F-fluoride–^{18}F-FDG scans. Thus, we concluded that the visual analysis alone (without the aid of a bone mask) of the combined ^{18}F-fluoride–^{18}F-FDG PET/CT allowed for accurate evaluation of the scans in this selected population with known cancers referred for detection of the extent of disease before therapy.

The other references cited by Dr. Bailey (*3,4*) do not report the combined administration of ^{18}F-fluoride and ^{18}F FDG but the different patterns of skeletal metastases, facts that we agree on and that are not disputed by our work.

We certainly hope that others who took the time to read our article in detail will in fact find it a detailed, rigorous prospective study. We look forward to multicenter clinical trials to further explore the advantages and limitations of our ^{18}F-fluoride–^{18}F-FDG cocktail approach to PET/CT imaging.

We also read the letter to the editor from Dr. Basu and want to thank him and his coauthor for their attention to our article and their comments. Just as we did in our paper, they also raise the challenging issue of determining the appropriate indications for the combined ^{18}F-fluoride–^{18}F-FDG PET/CT scan. We think that this approach will work for the initial staging of patients recently diagnosed with cancer, before initiation of treatment. Thus, the issues of bone marrow activation due to

therapy and the metabolic flare phenomenon will not be present. In normal bones, ^{18}F-fluoride has a diffuse and uniform uptake, and we believe that this will not mask the focal and intense ^{18}F-FDG uptake in bone marrow metastases. Of course, these hypotheses remain to be demonstrated in studies with larger cohorts.

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Erratum

In the article "Using Dual-Tracer PET to Predict the Biologic Behavior of Human Colorectal Cancer," by Hui et al. (*J Nucl Med.* 2009;50:1857–1864), the byline mistakenly indicated that 3 of the authors contributed equally. However, only Wang Hui and Zhang Jinming contributed equally to the work. We regret the error.