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REPLY: Thank you for allowing us to respond to Drs. Hans-Jürgen Machulla and Ehab Al-Momani, who caution readers about the recently established pre-clinical utility of [^{18}F]AlF^{2+} as alternative radiometal-like moiety for low temperature radiolabeling of radiometal complexing agent containing PSMA-ligands forprostate cancer PET imaging. We thank also on their comments to our articles (1,2) questioning the need of radiofluorinated PSMA-PET tracers in addition to the Gallium-68 labeled versions already available as theranostic ligands and appreciate their perspective on ^{18}F-labeled PSMA-tracers. Indeed, in recent years several ^{18}F-labelled PSMA radioligands apart of mentioned [^{18}F]AlF^{2+}-labeled variantshave already been introduced preclinically as well as clinically (3-5). Particular the work by Szabo et al. (4) presented the clinical introduction of ^{18}F-DCFPyL, the improved second generation of ^{18}F-PSMA-ligands, in the clinical setting which was then followed by the clinical introduction of the further optimized next generation PET tracer ^{18}F-PSMA-1007 by Giesel et al. (5). Both ^{18}F-labeled ligands already entered prospective clinical trials which highlights the obvious high potential of these radiofluorinated tracers for the primary diagnosis of prostate cancer and detection of relapse by means of PET/CT and PET/MRI. In this connection the GMP-compliant procedures for the GMP-compliant production of mentioned radiofluorinated PSMA ligands have also already been established to cover all regulatory prerequisites. Anyhow, [^{18}F]AlF^{2+} labeled versions for PSMA ligands, originally intended for radiometal labelling (e.g. ^{68}Ga and ^{177}Lu), themselves after sophisticated and successful radiolabeling, again have to be carefully preclinically evaluated like every new PSMA tracer bearing a new radiolabel moiety, in this case especially concerning potential defluorination in vivo. However, until today only limited preclinical results in vitro and in vivo are available for [^{18}F]AlF^{2+} labelled PSMA ligands. The major concern is the necessary elucidation of maintained binding affinity and internalization properties after [^{18}F]AlF^{2+} labeling of the theranostic PSMA ligand of interest and finally the examination of the pharmacokinetic properties in vivo. In this respect we are looking forward to seeing first-in-man data with [^{18}F]AlF^{2+} labeled versions of PSMA ligands proving their clinical impact including acceptance to be confirmed by the necessary uro-oncological referrals. In any case, we strongly appreciate the comments of Drs. Hans-Jürgen

Machulla and Ehab Al-Momani and agree with their statement, that ^{18}F-labeled PSMA ligands are essential in the future not only because of the advantageous nuclear properties of fluorine-18 but also to cover the clinical demand in daily patient care by offering large scale batches of the respective ^{18}F-tracer. Anyhow, we are deeply convinced that depending on the hospital and PET center environment and infrastructure in respective countries with reduced clinical demand, ^{68}Ga-labelled PSMA ligands will still play a clinical role in the future.

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