Focus on...: Čerenkov radiation

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Dear Sir,

The “Focus on...” article in the March 2011 issue of EJNMMI [1] omitted one excellent Čerenkov emitter, ^{32}P , and a classical organ in which to exploit it, namely, the eye.

In 1971, I demonstrated Čerenkov radiation from ^{32}P in a rabbit's eye following IV injection of the orthophosphate [2]. It was the proof of concept stage of a project to differentially diagnose ocular melanoma.

The basic apparatus was to have a binocular system where the unaffected eye tracked a moving spot on a display while the eye under examination was monitored

with a light detector, thereby mapping the Čerenkov distribution on the back of that eye. If ocular melanoma still poses a diagnostic dilemma, this simple technique is waiting to be tested.

References

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