Conserved Sequence and Structural Elements in the HIV-1 Principal Neutralizing Determinant: Corrections and Clarifications

This communication serves to correct and clarify several points in the report “Conserved sequence and structural elements in the HIV-1 principal neutralizing determinant” by G. J. LaRosa et al. (24 Aug., p. 932) [Science 249, 932 (1990)]. The corrections are as follows. In figure 1, sequence 8, position 3 should have been R; sequence 62, position 27 should have been T; sequence 29 should have been K, and position 30 should have been Q; sequence 65, position 28 should have been T; sequence 66, position 31 should have been I, and position 32 should have been M; sequence 135, position 29 should have been a period (.); sequence 166, position 15 should have been R; sequence 198, position 35 should have been V; sequence 216, position 24 should have been F; and sequence 222, position 32 should have been a period (.). These errors arose during manual transcription of sequence data. In addition, sequence 172 was denoted IIIB-HXB3 in figure 1. This principal neutralizing determinant (PND) sequence was obtained from a field isolate and is not the same as that of HXB3. Sequence 171 was also obtained from a field isolate and was identical in the V3 region to IIIB-HXB2, as denoted in figure 1. All of these corrections and the corresponding nucleotide sequences have been deposited in GenBank under accession number M37586 and in the Human Retroviruses and AIDS database.

The above corrections result in the following corrections to figure 2. Under position 15 should have been H113, not H114, and R28, not R27; under position 24 should have been F177, not F176, and H was not found at this position; under position 27 should have been T138, not T137, and A91, not A92. In addition, the following statements in the text should be corrected. Paragraph 3, sentence 5 should have read, "...results in a total of 225 PND sequences, to which were added 20 published sequences"; paragraph 4, sentence 2 should have read, "Of the 245 sequences, 221 (90%) contained 35 amino acids from cysteine to cysteine"; paragraph 5, sentence 3 should have read, "...and the GPG tripeptide was present in 225 of the 245 sequences"; and paragraph 6, sentence 4 should have read "...for example, those with PND isolate numbers 51, 85, 113, and 168...".

These corrections do not affect any other statements, tables, or figures in the paper and in no way affect any conclusions drawn from the data presented.

The clarifications are as follows. In figure 1, amino acid sequence 66 was obtained from Beatrice Hahn and amino acid sequences 35 and 87 from Jaap Goudsmit. These amino acid sequences were obtained by us from Hahn and Goudsmit in 1988 and were accidently incorporated in figure 1. Hahn and Goudsmit have provided us with the nucleotide sequences for these amino acid sequences, and they have been deposited in GenBank. In addition, several clones originating from the DNA of a single infected individual or viral isolate were used to generate the sequences in figure 1. As mentioned in the text of the paper, if such sibling sequences were identical to each other they were represented in figure 1 only once, and each unique sequence was listed. The list of all such sibling sequences has been deposited in the Human Retroviruses and AIDS database.


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