

**P015** An IRES entirely downstream of its initiation codon  
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Translation initiation in eukaryotes begins by the assembly of a 48 S ribosomal preinitiation complex to the 5' untranslated region (5'UTR) either on the 5' cap or to an IRES element. In both cases, sequences upstream to the initiation codon are required for attachment, scanning, recognition and appropriate positioning of the ribosomal subunit. Here, we report that translation of the HIV-2 genomic RNA gives rise to the full length Gag p57 polyprotein and two, yet undescribed, shorter isoforms of Gag p57, produced by alternative initiation of translation on two distinct AUGs. Production of the full length HIV-2 Gag polyprotein is driven by a novel type of IRES that has the ability to recruit ribosomes upstream from its core sequence. Combination of data obtained from *in vitro* and *in vivo* translational assays together with structural studies indicate that this mechanism requires the presence of RNA structures located entirely downstream to the AUG initiation codon. The elements that allow ribosomes binding and initiation codon selection are currently under investigation. This work is supported by grants from TRIOH, ANRS and an ACI.