Reviewer's report

Title: Novel therapeutic strategies targeting HIV integrase

Version: 1 Date: 30 January 2012

Reviewer: Zeger Debyser

Reviewer's report:

Excellent review on novel HIV integrase inhibitors. The review is well written and complete. I only have minor remarks

1. typo p2 3rd line is instead of in
2. p5 line 6-7 rephrase because not clear to me
3. p5 800 mg (space)
4. p9 line 14: it has rational: rephrase ; please check reference 57 if appropriate (is about raltegravir, not MK-2048)
5. QSAR/QSPR; the advance is related to the PFV intasome rather than to modeling; this has to be shown in the title of the paragraph; moreover a critical appraisal of the PFV intasome for INI discovery has to be included; is it useful for all INIs??
6. LEDGINs refers to a class name (inhibitors of the LEDGF/p75 binding pocket in integrase) where molecules from different chemical nature bind; BI compounds-although distinct in chemical nature from the Belgian compounds-belong to the same class; this should be evidenced in the paper.

Same is true for the MOA listed in Figure 1; LEDGF/p75 binding inhibition is main mechanism of BI. I would add Belgian compounds to figure as well, since they are the only published ones but add the prefix (pre): pre)clinically relevant INIs

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I'm patent holder on compounds targeting integrase but do not feel that this affects my objective review