



## ASX Release

### **Avexa Reports Superior Results in ATC Phase IIb Clinical Trial Update 48 week data shows 90% of treated patients achieve undetectable viral loads**

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Melbourne-based biotechnology company Avexa Limited (ASX:AVX) announced excellent 48 week data from apricitabine's (ATC) phase 2b clinical trial. At week 48 the proportion of patients with HIV levels below detectable was over 90%. Patients who were initially treated with 3TC but who changed to ATC at week 24 also improved their response after their switch to ATC. Avexa also reported that the CD4 cell count of ATC treated patients continued to increase out to 48 weeks. Patients initially treated with 3TC and then switched to ATC doubled their levels of CD4 cell count at week 48 (after 24 weeks of ATC) compared to their CD4 cell count after 24 weeks of 3TC.

"These exciting results indicate that the clinical and immunological benefit of ATC continues to increase with long-term treatment out to 48 weeks. This is compelling evidence of the improvements that can be obtained when patients switch to ATC from 3TC" said Dr Julian Chick, CEO of Avexa.

No ATC resistance has been identified after 48 weeks of therapy. This demonstrated ability of ATC to withstand selection of HIV resistance, even in patients who have already failed other drugs, differentiates it from some of the other HIV drugs in clinical use.

The safety profile of ATC continues to be excellent. No serious adverse events related to ATC have occurred to date and no patients have withdrawn from the trial because of any side effects related to ATC. Some patients on ATC reported no adverse effects at all during 48 weeks of therapy which is a remarkable finding.

"These 48 week results clearly define ATC as a drug with huge potential both for drug-resistant patients in need of potent and safe new HIV therapies and for patients whose regimen currently contains 3TC" said Dr Chick. "Replacing 3TC with ATC in a patient's regimen, even after optimization of the rest of the background regimen, could provide additional clinical benefit."

The 48 week results of this Phase 2b trial will be submitted for publication and presentation at a forthcoming international HIV conference.

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**Avexa Limited is a Melbourne-based biotechnology company with a focus on research and development of drugs for the treatment of infectious diseases. Avexa has dedicated resources and funding for key projects including its HIV integrase program and an antibiotic program for antibiotic-resistant bacterial infections. The Company's lead program is apricitabine (ATC), an anti-HIV drug which has successfully completed the 48 week dosing of its Phase 2b trial. Avexa initiated Phase 3 trials for ATC in late 2007.**

## Technical Details

Key Highlights from the 48 week data.

- Increase in the percentage of patients with viral loads below detectable at week 48 compared to week 24
- Patients switching from 3TC to ATC improved their response, with the percentage of patients with viral loads below detectable and the levels of CD4 cells both increasing after the switch to ATC at week 24
- Patients switching from 3TC to ATC obtained, on average, approximately a further 0.5 log decrease in their viral load
- The safety profile for ATC remains excellent, and is very similar to that seen with 3TC
- After 48 weeks no clinical resistance to ATC has been detected

AVX-201 is a 48 week Phase 2b clinical trial which enrolled 51 patients. The trial is composed of three segments. For the first 21 days, patients received 600mg or 800mg ATC twice daily, or continued on 3TC, without changing their background drug regimen. At day 21, patients continued on ATC or 3TC as before, but their background drugs were optimized depending on their treatment history and drug resistance. At week 24, all patients were offered open label ATC 800mg twice daily. Results from the initial 21 day period were reported by Avexa in March 2007. Results from 24 week period were reported by Avexa in September 2007. This announcement describes the data from the third segment of the trial to week 48.

At week 48, the number of patients whose plasma levels of HIV were below the limit of detection (400 copies/mL or 50 copies/mL, depending on the assay) was calculated. For the 800mg ATC dose more than 90% of patients had plasma levels of HIV less than 400 copies/mL and more than 80% had less than 50 copies/mL. Even patients with three or more thymidine analog mutations (resistance mutations commonly associated with current treatments) showed similar potent responses. These patients are generally considered to be a hard-to-treat population and rarely achieve responses of over 70% with current therapies. A similar response was observed for the patients who initially had the 600mg dose of ATC and then crossed over to the 800mg dose for the second 24 weeks.

No evidence of resistance to ATC was observed up to week 48 in this trial. Only four patients had sufficient levels of virus for genotyping at week 48 and none showed additional mutations in reverse transcriptase.

Remarkably, in ATC treated patients the level of CD4 cells in the patients' blood rose by more than 250 cells per microliter on average. This marked increase demonstrates that ATC is able to not only halt the decline in CD4 cells seen in HIV infection but even reverse that decline, indicating that ATC is having a clinically beneficial effect on the patients' immune system.



Patients initially treated with 3TC and then switched to ATC showed improvements in both their viral load and their CD4 cell count after switching to ATC. The levels of CD4 cells at week 48 (after 24 weeks of ATC) had nearly doubled compared to the levels after 24 weeks of 3TC. In addition a greater number of patients reached undetectable viral loads at week 48 after switching to ATC at week 24 compared to levels after 24 weeks of 3TC.

Across the whole study, most adverse events were mild or moderate in nature. Four patients on ATC reported no adverse events at all up to week 48. No serious adverse events related to ATC have occurred to date, and no patients have withdrawn from the study because of adverse events related to ATC. Two patients were withdrawn from the study due to unplanned pregnancies.