P005 LONG-TERM SAFETY AND EFFICACY OF SOLRIAMFETOL FOR EXCESSIVE DAYTIME SLEEPINESS: AN OPEN-LABEL EXTENSION RANDOMISED WITHDRAWAL TRIAL

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Introduction Solriamfetol (formerly JZP-110), a dopamine and norepinephrine reuptake inhibitor, has been approved in the United States to improve wakefulness in adults with excessive daytime sleepiness (EDS) associated with narcolepsy (75–150 mg) or obstructive sleep apnoea (OSA; 37.5–150 mg). A Marketing Authorisation Application for these indications is under review with the European Medicines Agency. This study evaluated the long-term safety and efficacy of solriamfetol.

Methods Participants with EDS associated with narcolepsy or OSA who completed prior solriamfetol studies initiated open-label treatment with a 2-week titration phase followed by a maintenance phase of ≤50 weeks. A 2-week, placebo-controlled, randomised withdrawal (RW) phase was conducted after 6 months. Change from beginning to end of the RW phase in Epworth Sleepiness Scale (ESS) was the primary endpoint; Patient and Clinician Global Impression of Change (PGI-C and CGI-C, respectively) were secondary endpoints.

Results Safety population comprised 643 participants (226 narcolepsy; 417 OSA); 280 participants (141 placebo; 139 solriamfetol) comprised the RW modified intent-to-treat population. A total of 458 participants (71%) completed the study. Maintenance of efficacy in this 1-year study was demonstrated on the ESS, PGI-C, and CGI-C. Least squares mean change from the beginning to the end of the RW phase in ESS score was 5.3 versus 1.6 in participants randomised to placebo or solriamfetol, respectively ($P < 0.0001$). Greater percentages of participants randomised to placebo

versus solriamfetol in the RW phase reported as worse on PGI-C and CGI-C (both $P < 0.0001$). The most frequent adverse events (AEs; $\geq 5\%$) were headache, nausea, nasopharyngitis, insomnia, dry mouth, anxiety, decreased appetite, and upper respiratory tract infection; 27 (4.2%) participants had ≥ 1 serious AE.

Discussion These results demonstrate the long-term efficacy of solriamfetol for EDS in participants with narcolepsy or OSA. Safety profile following long-term administration was consistent with prior solriamfetol studies.

Support Jazz Pharmaceuticals.

P006 MODELLING SLEEP-WAKE TRANSITIONS IN VERY AND MODERATELY PRE-TERM INFANTS

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Introduction Sleep is the dominant vigilance state in pre-term infants, but its regulation is still poorly understood, with no underpinning quantitative framework.

In animal studies, neonatal sleep-wake characteristics follow statistical patterns, e.g. wakefulness durations exhibit an exponential distribution.¹ Here we investigated whether the same holds true for pre-term human infants.

Methods We recorded electroencephalography (EEG), respiratory movement, electrocardiography (ECG), and behavioural observations for up to two hours from 54 non-mechanically ventilated infants being cared for on the neonatal unit (28+2–34+1 weeks+days corrected gestational age). Data were staged as sleep or wakefulness in 30-s epochs (figure 1).

We characterised i) the distribution of wakefulness durations, using the Kolmogorov-Smirnov goodness-of-fit test, and ii) the likelihood of transitioning from sleep to wakefulness during the recording, using the Kaplan-Meier estimator which takes account of censored observations, i.e. when the event of interest (wakefulness) was not captured.

Results 14/54 (26%) infants cycled through wakefulness during the recording; durations ranged from 2 to 29 minutes and

Abstract P006 Figure 1