

Changing the daily injection of glatiramer acetate to a monthly long acting product through designing polyester-based polymeric microspheres

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Supplementary file 1

Table S1. Accelerated and real time stability tests of particles prepared by W/O/W and S/O/O methods (n=3).

| Formulation | Initial test results | | 6 months, Real time ($5 \pm 2^\circ\text{C}$, 60 ± 5% RH) | | 6 months, Accelerated ($25 \pm 2^\circ\text{C}$, 60 ± 5% RH) | |
|-------------|----------------------|------------------------------|---|------------------------------|--|------------------------------|
| | Particle size (μm) | Encapsulation efficiency (%) | Particle size (μm) | Encapsulation efficiency (%) | Particle size (μm) | Encapsulation efficiency (%) |
| F1 | 23.4 ± 3.81 | 23.4 ± 3.56 | 27.3 ± 1.75 | 20.4 ± 0.68 | 34.0 ± 0.04 | 12.2 ± 0.37 |
| F2 | 24.1 ± 6.20 | 24.7 ± 1.70 | 21.7 ± 9.60 | 23.7 ± 0.29 | 18.1 ± 0.14 | 12.3 ± 0.19 |
| F3 | 10.0 ± 0.00 | 52.2 ± 8.30 | 15.1 ± 0.19 | 52.7 ± 1.84 | 10.0 ± 0.04 | 44.2 ± 0.33 |
| F4 | 12.0 ± 2.54 | 66.6 ± 6.32 | 13.9 ± 0.14 | 41.1 ± 1.39 | 14.1 ± 0.14 | 34.0 ± 1.42 |
| F9* | 6.55 ± 0.35 | 52.1 ± 3.67 | 6.19 ± 0.19 | 47.1 ± 4.03 | 6.60 ± 0.28 | 35.2 ± 0.77 |
| F10 | 10.7 ± 1.54 | 50.1 ± 4.61 | 20.7 ± 0.91 | 19.7 ± 2.54 | 11.6 ± 0.21 | 22.2 ± 0.41 |
| F11 | 27.0 ± 7.77 | 30.5 ± 3.25 | 31.2 ± 1.76 | 20.2 ± 0.36 | 50.0 ± 0.28 | 18.3 ± 0.49 |
| F12 | 48.9 ± 1.55 | 30.5 ± 1.11 | 51.5 ± 1.90 | 20.5 ± 0.89 | 54.9 ± 0.91 | 11.0 ± 1.41 |
| F14 | 27.2 ± 7.63 | 42.8 ± 1.09 | 30.7 ± 1.06 | 12.3 ± 0.49 | 31.9 ± 2.72 | 2.12 ± 0.16 |
| F17 | 37.6 ± 1.53 | 49.5 ± 4.06 | 30.5 ± 0.70 | 50.5 ± 5.42 | 33.9 ± 0.10 | 32.1 ± 3.10 |
| F18 | 47.7 ± 3.18 | 31.4 ± 1.46 | 50.5 ± 4.72 | 28.2 ± 3.54 | 46.2 ± 1.06 | 10.7 ± 2.14 |
| F20 | 10.6 ± 0.94 | 31.1 ± 0.87 | 17.5 ± 3.54 | 31.3 ± 1.88 | 31.5 ± 2.18 | 24.6 ± 0.53 |

* Optimized formulation. The formulations were selected to study the effect of variables on the stability.