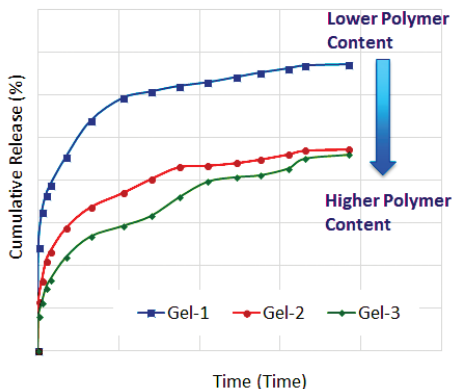




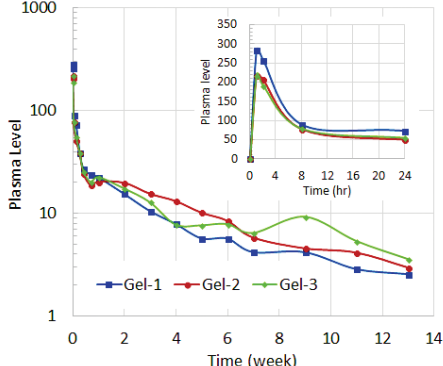
# SUSTAINED RELEASE GEL FORMULATION

## Formulation Screening PLGA Gel for $\geq 3M$ Delivery



IVR in pH 7.4 at 37°C, 50 rpm

Note: all formulations contain 1000 10% API loading



Single Dose in Rat, Exposure  $\geq 3M$  Acceptable Burst

## Syringeability for PLGA Gel Acceptable Break Loose Force

DDE Data:  
Break loose force for PLGA Gel Systems provide  $\geq 3M$  Delivery

Sample	Needle Gauge	Break Loose Force (N)
PLGA Gel-1	21G 1"	5.93
	23G 1" UTW	6.12
	25G 5/8" UTW	8.85
PLGA Gel-2	21G 1"	7.96
	23G 1" UTW	13.9
	25G 5/8" UTW	21.81
PLGA Gel-3	21G 1"	21.53
	23G 1" UTW	41.71
	25G 5/8" UTW	> 60

Plunger moving speed: 2 mm/sec  
Record force when dispensing 200 uL formulation with a 1 mL BD plastic syringe

### Typical curve for empty syringes

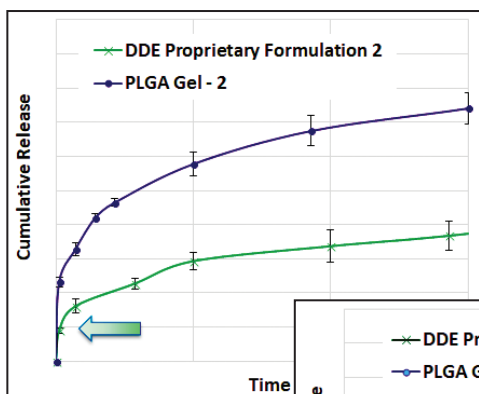


Typical gliding force curve for empty syringes.

Plunger moving direction

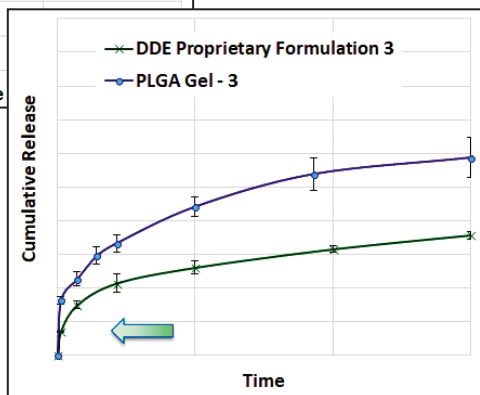


## DDE Proprietary Formulation Reduced Initial Burst



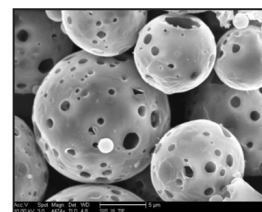
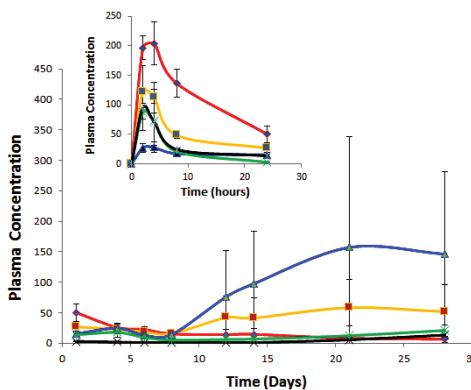
IVR in pH 7.4 at 37°C, 50 rpm

DDE Proprietary Gel systems showed relatively slower release



## PLGA Microsphere Various PLGA MW & Excipients

Single Dose in Rat for Weekly Delivery



IVR in pH 7.4 at 37°C, 50 rpm

