Screening of poly-beta amino esters coated emulsion of ketorolac for cartilage delivery

By
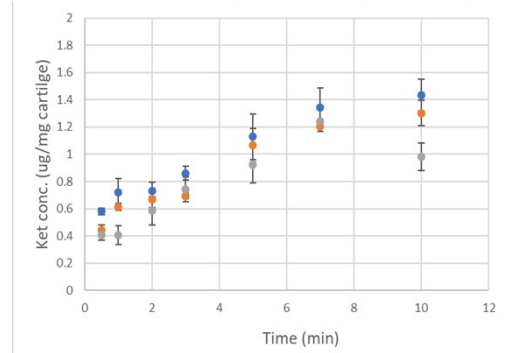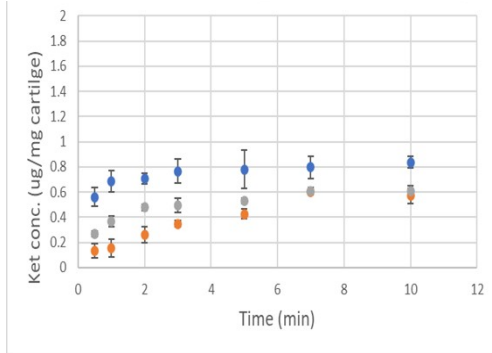
Tahani Saeedi [a], Polina Prokopovich [a,*]

Supplementary info
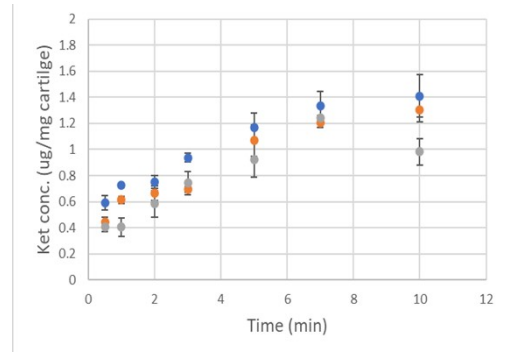
Untreated cartilage tissue

GAG depleted cartilage tissue

A1

B1
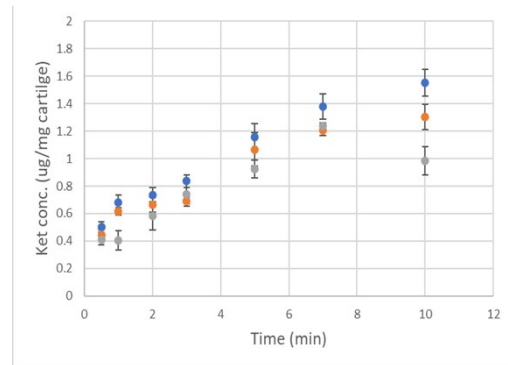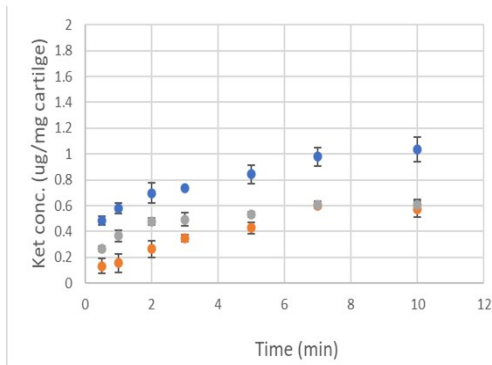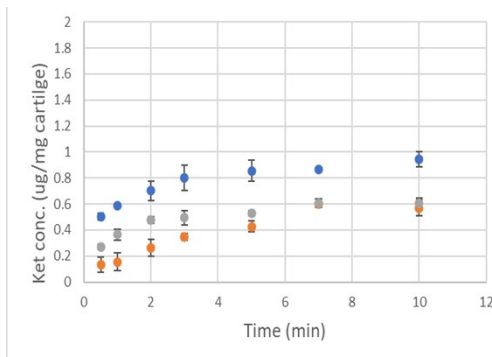
D1

E1

F1

A3

B3

D3

E3

F3
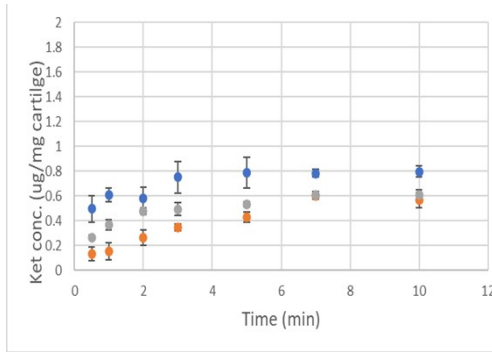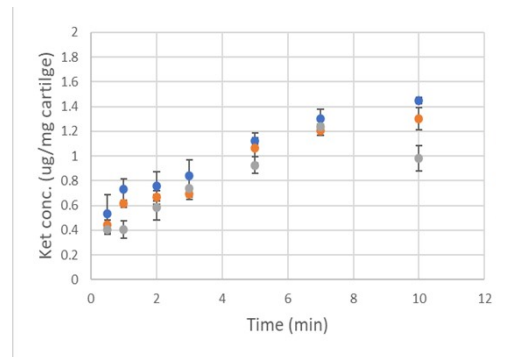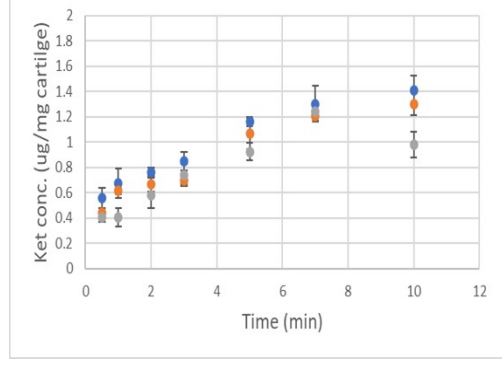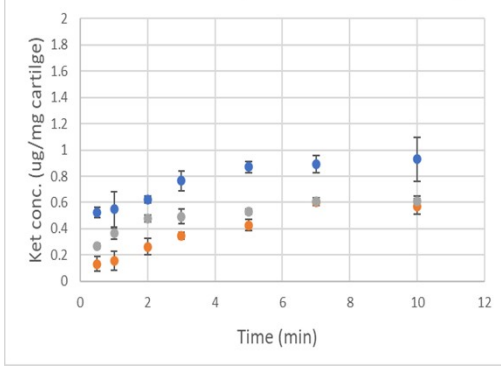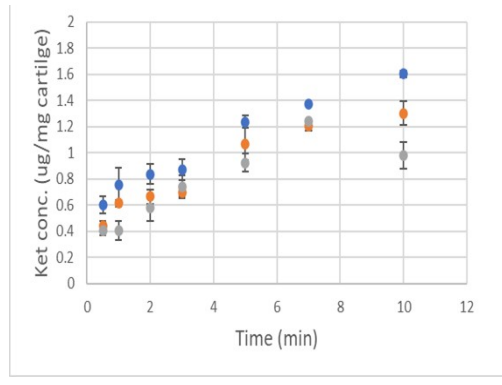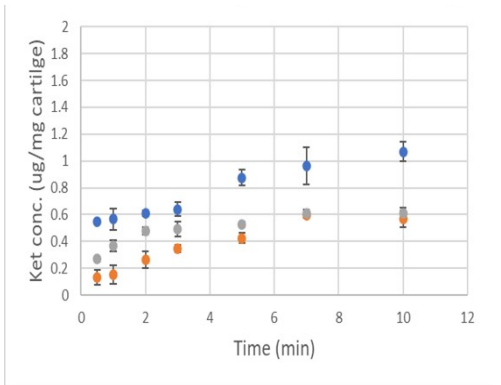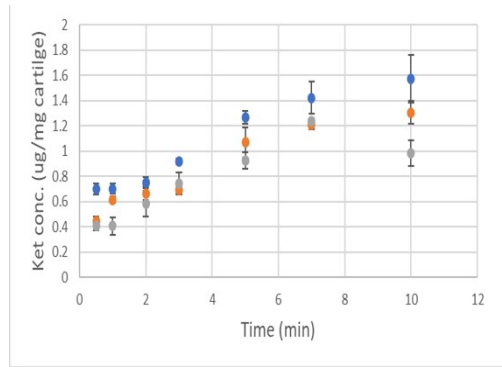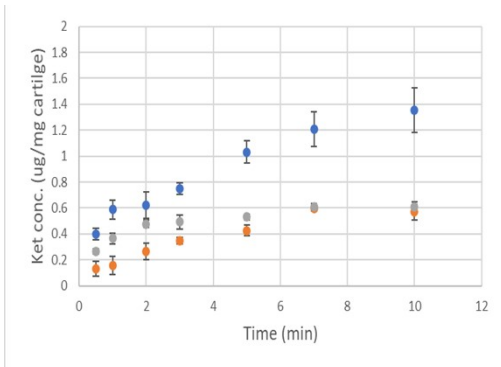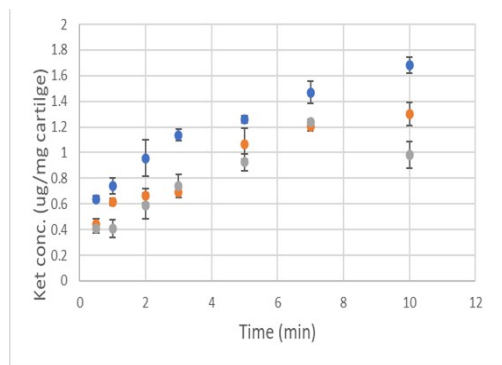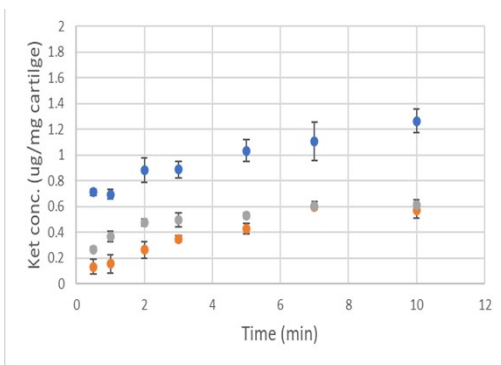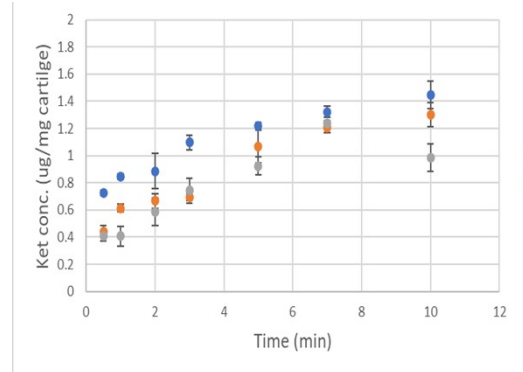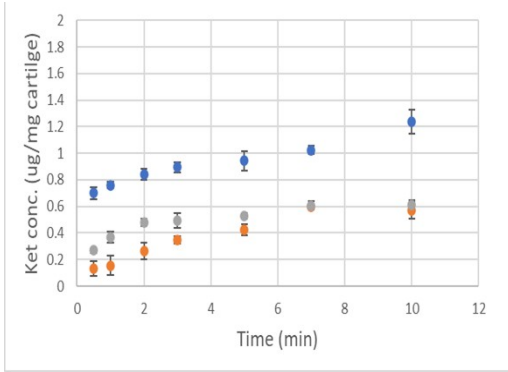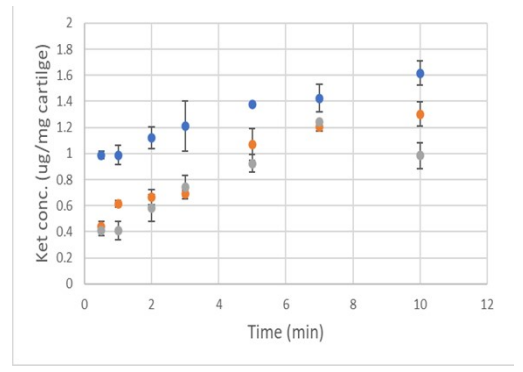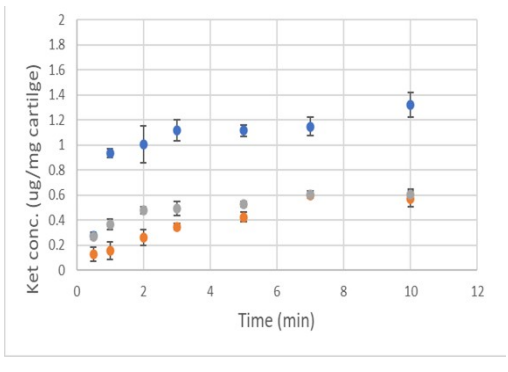
A5
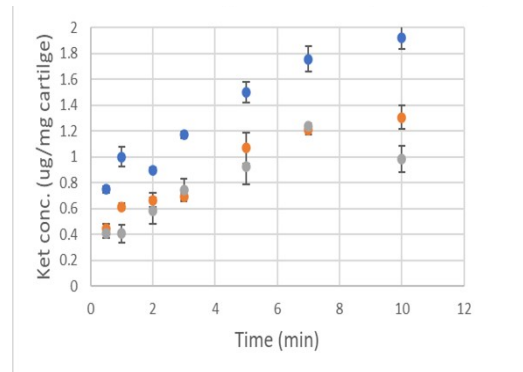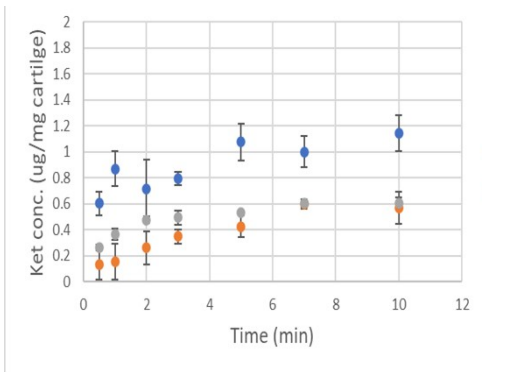
D5

E5

F5

Figure S1: Comparison of ketorolac uptake into cartilage after 10 min exposure to (●) ketorolac o/w emulsion saturated with PBAE, (●) ketorolac in PBS, and (●) ketorolac o/w emulsion in both untreated and GAG depleted cartilage using different PBAEs.

Untreated cartilage tissue

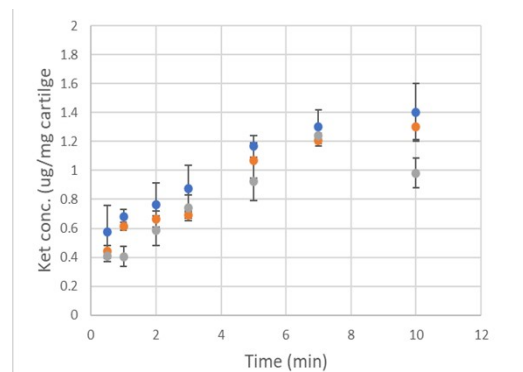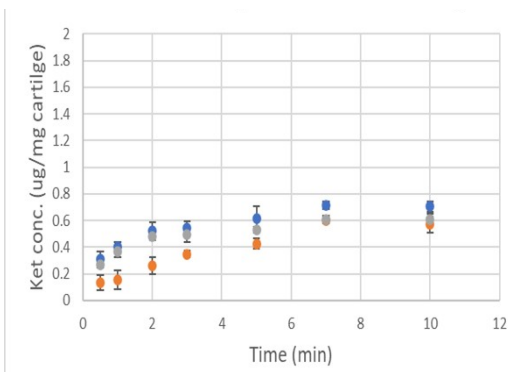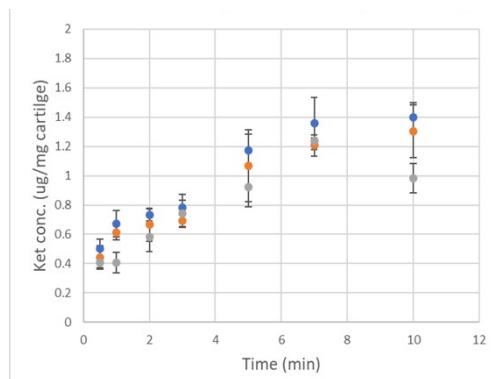**GAG depleted cartilage tissue**
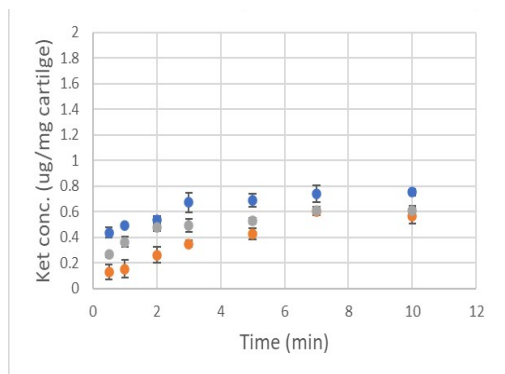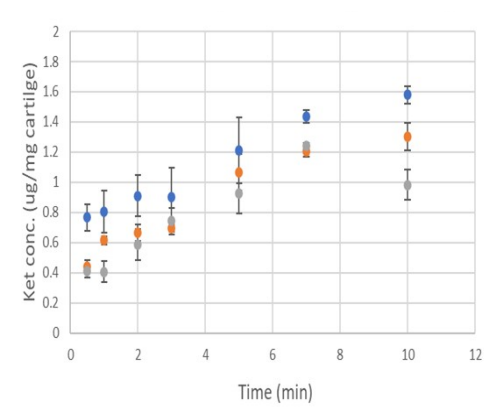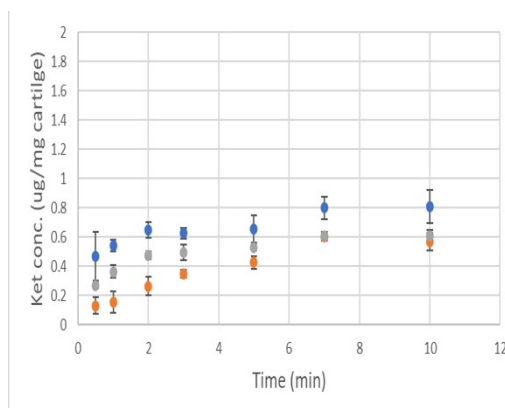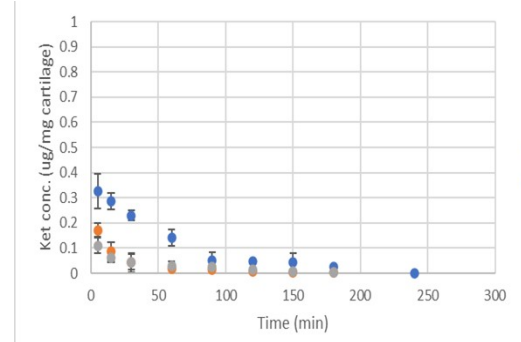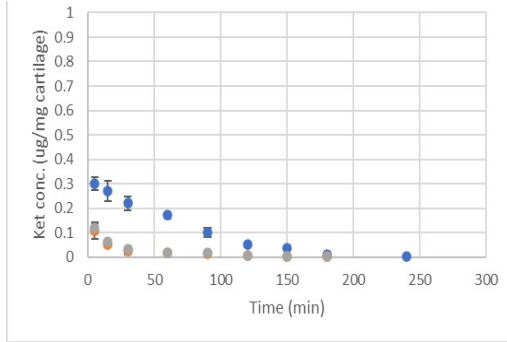
A1

B1

D1

E1

F1

A3

B3

D3

E3

F3
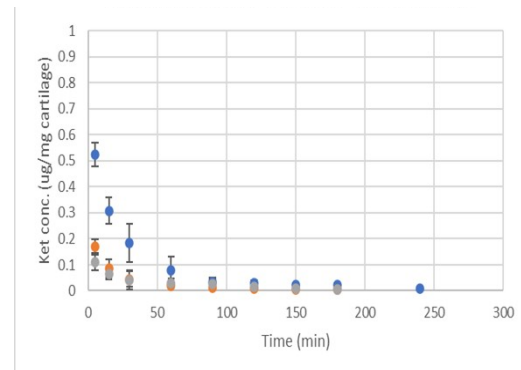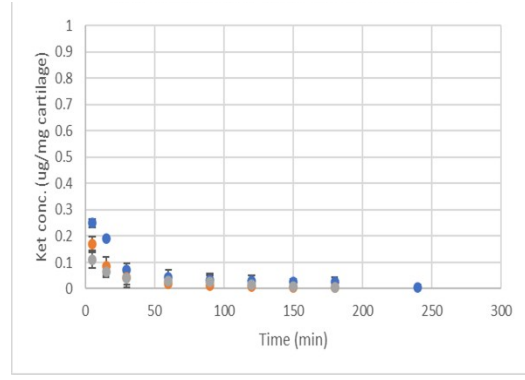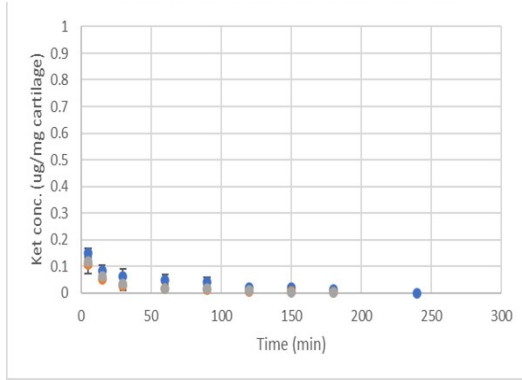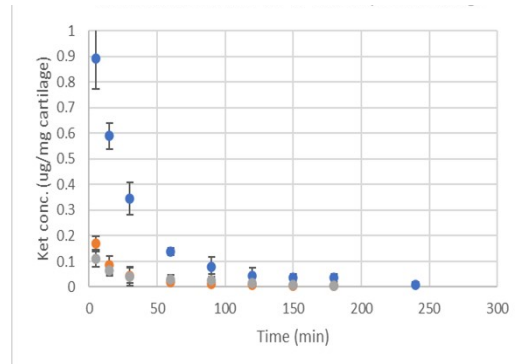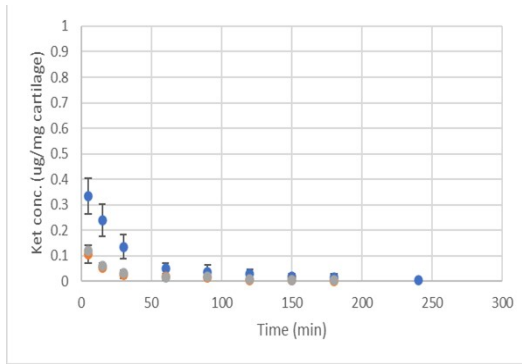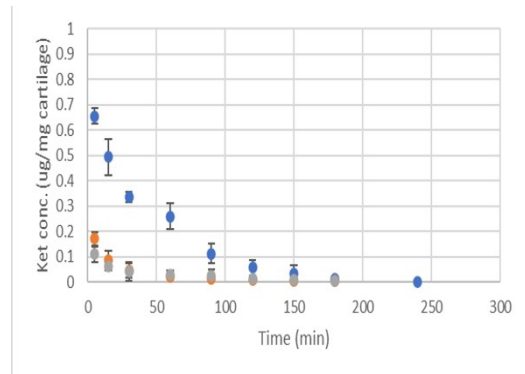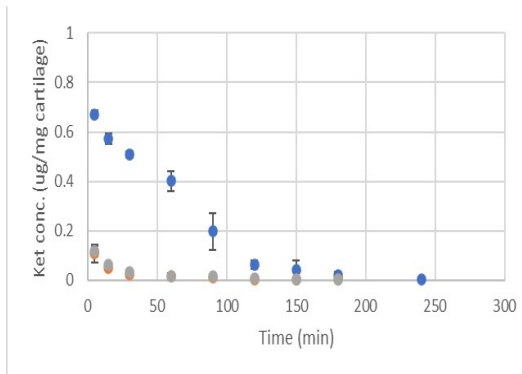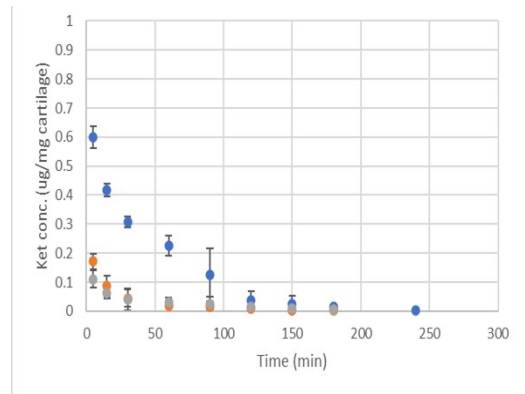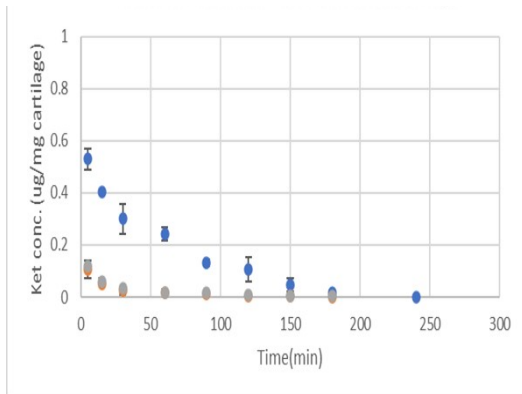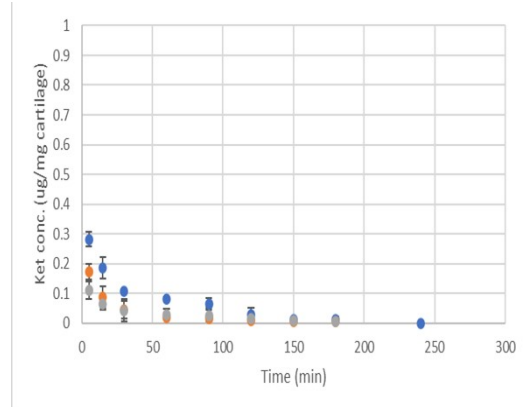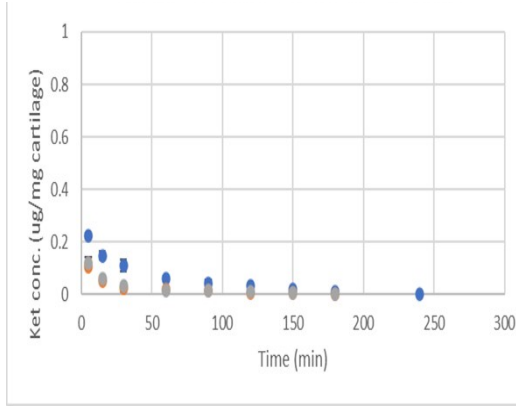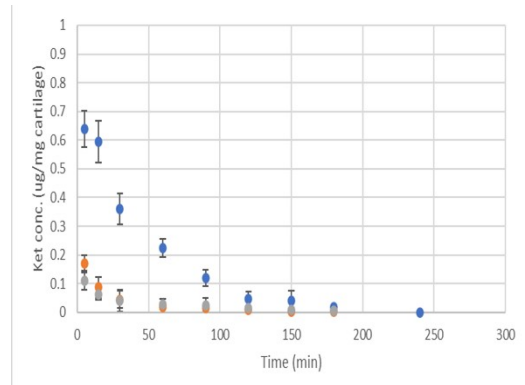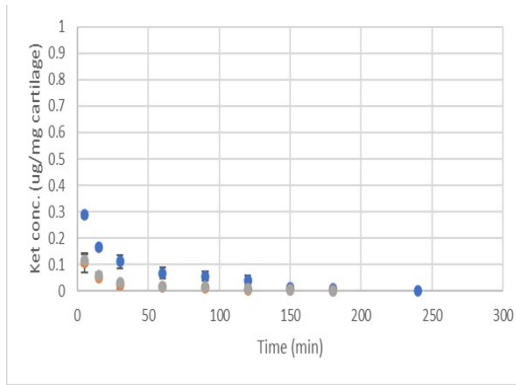
A5
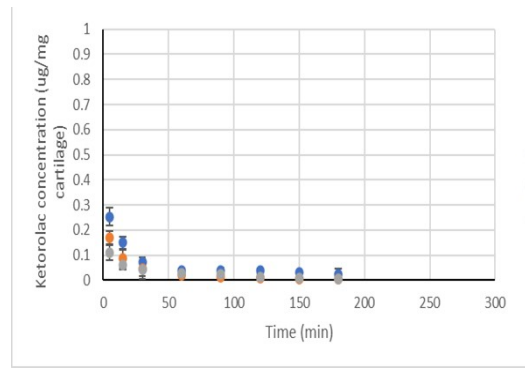
D5

E5

F5

Figure S2: Comparison of ketorolac retention into cartilage for 300 min (5 hours) after 10 min exposure to (●) ketorolac o/w emulsion saturated with PBAE, (●) ketorolac in PBS, and (●) ketorolac o/w emulsion in both untreated and GAG depleted cartilage using different PBAEs.
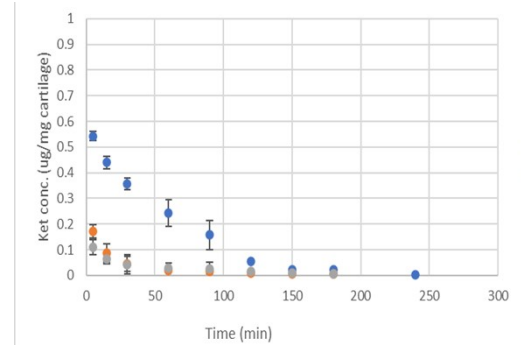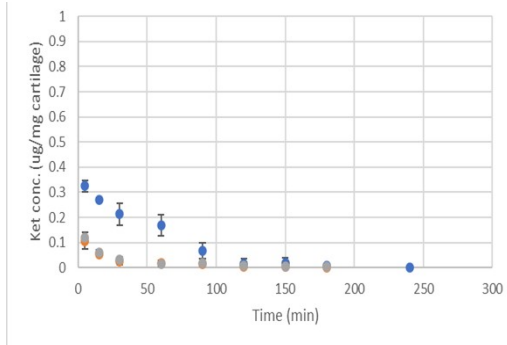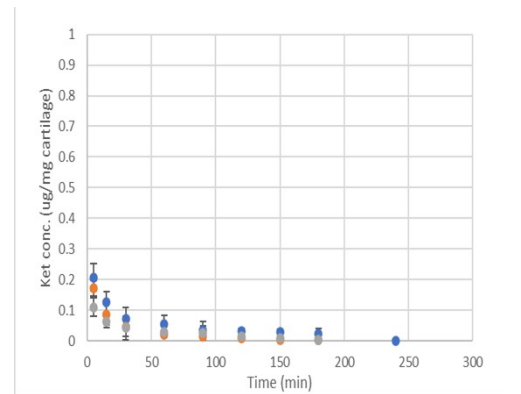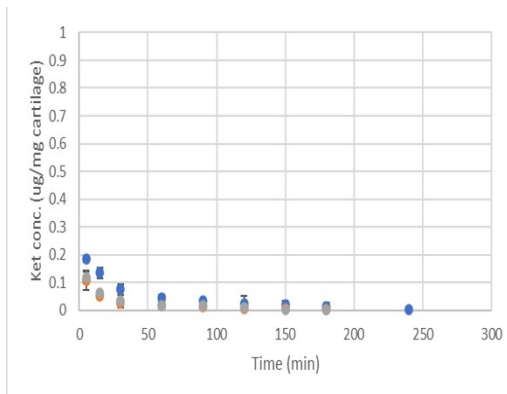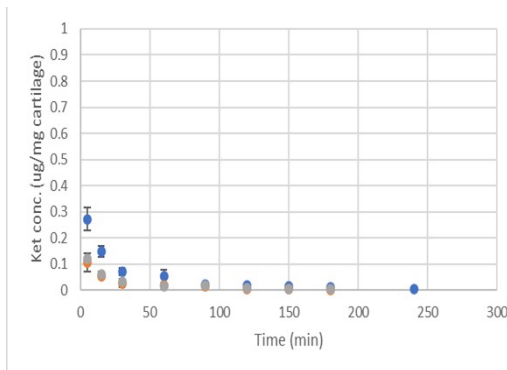
Media only

IL-1α

B5 + IL-1α

Ketorolac emulsion coated with B5

Ketorolac emulsion coated with B5 +IL-1α
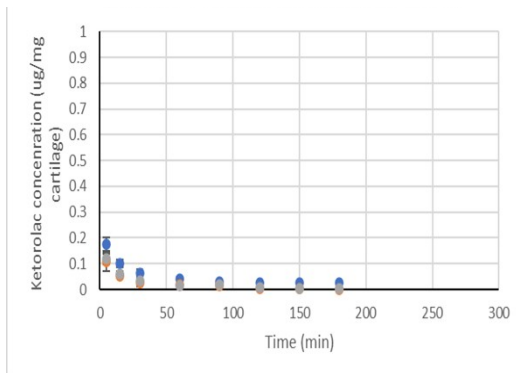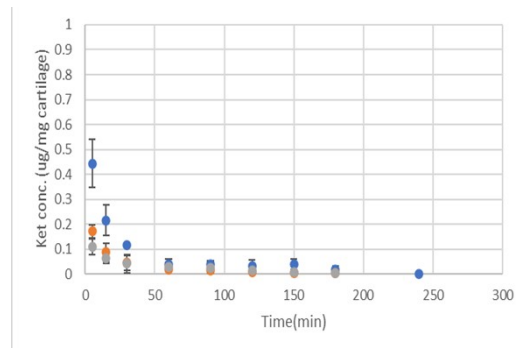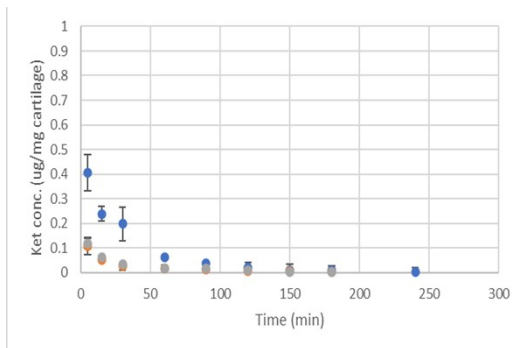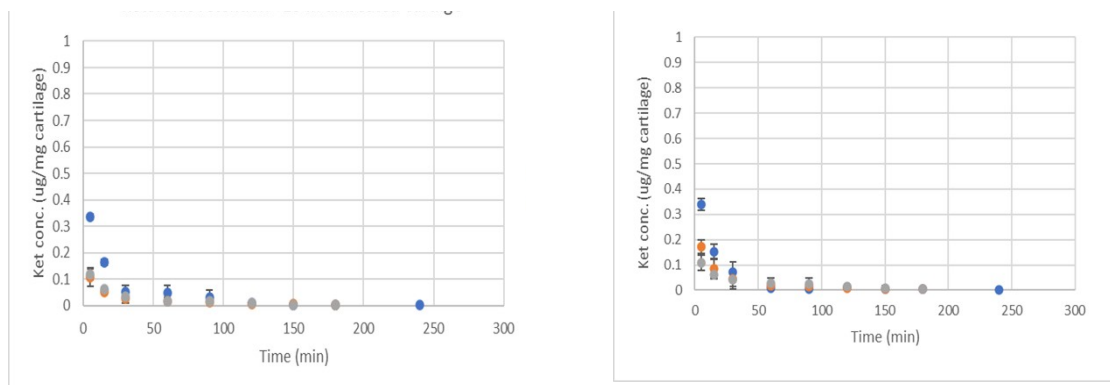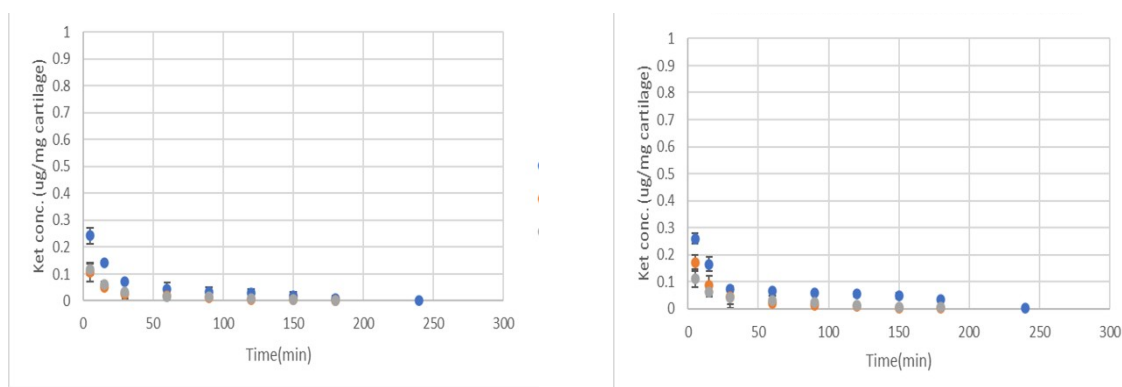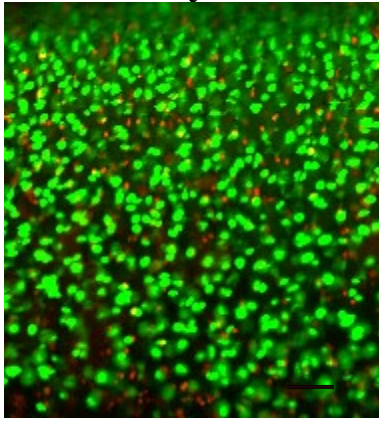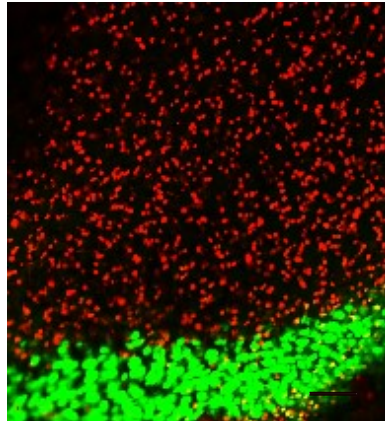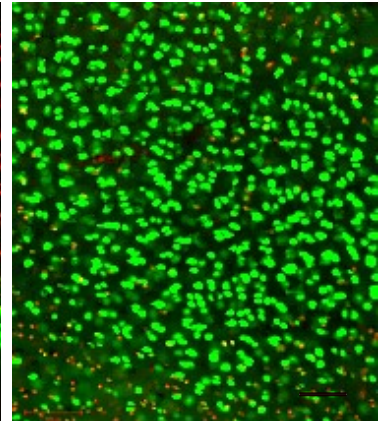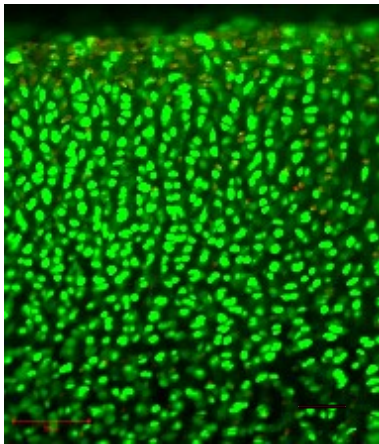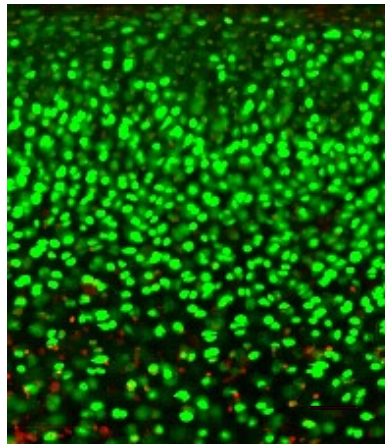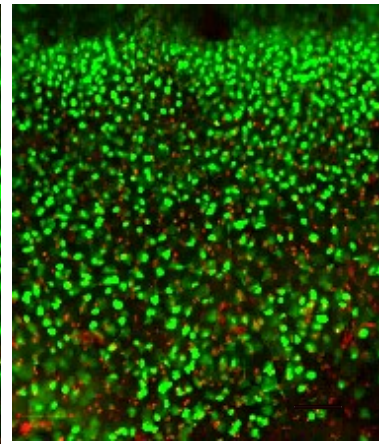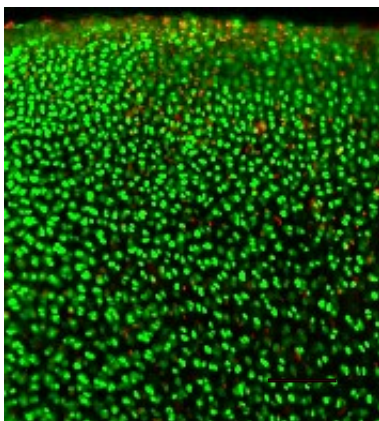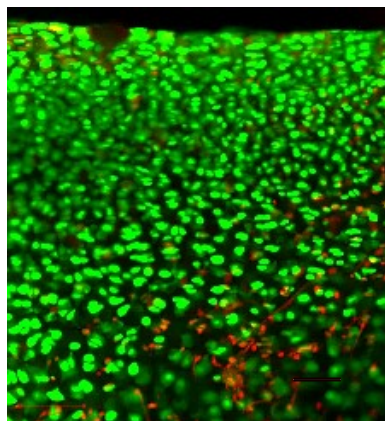
F3 + IL-1α

Ketorolac emulsion coated with F3

Ketorolac emulsion coated with F3+IL-1α

Figure S3 Examples of images of live/dead fluorescently stained sections of bovine cartilage explants exposed to IL-1α (1 ng/ml) and coated with F3 and B5 or uncoated ketorolac emulsions on Day 2. Live

cells were stained green by calcein, and dead cells were stained red by ethidium homodimer. Scale bar 100µm.