Forces Produced by Protofilament Curls

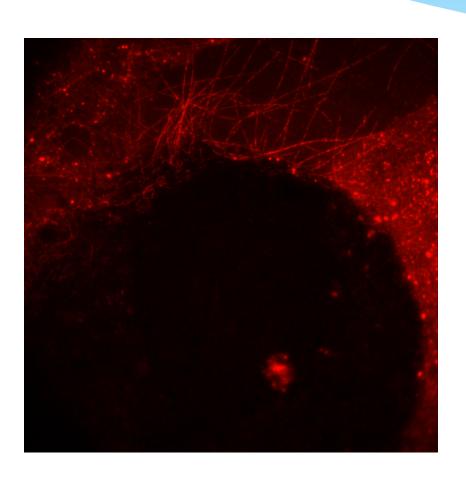
and

Nucleotide Preference for End Binding Proteins



Forces Produced by Protofilament Curls

AIM: to measure whether gel-embedded microtubules shrink slower during depolymerisation

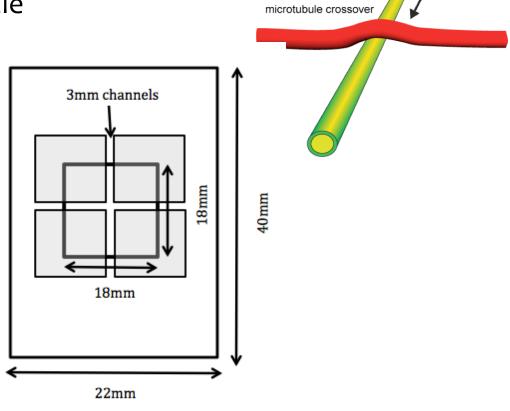


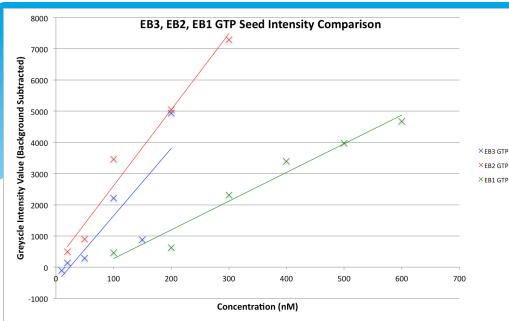
- Microtubules were imaged in a channel with pillars of agarose over 15 minutes periods
- No growth was seen into the agarose gel pillars

Forces Produced by Protofilament Curls

AIM: to investigate resistance and microtubule crossovers by inducing shrinkage of underpassing microtubule

- Stable overpassing microtubule
- Dynamic underpassing microtubule
- Inconclusive results
 - Microtubule bleaching
 - Seed bleed-through

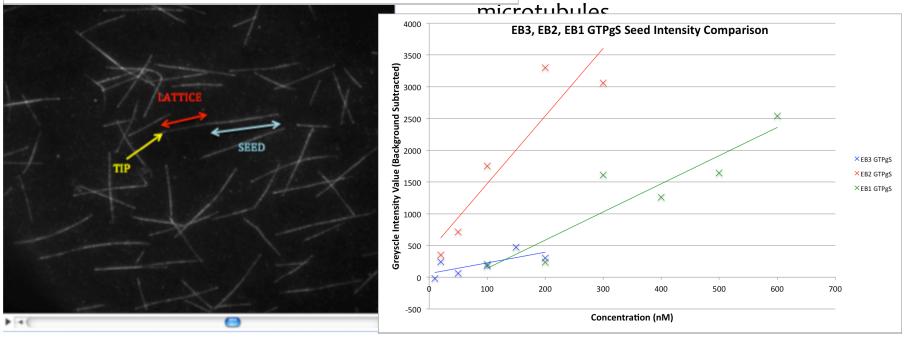




nd Binding Proteins

ins with GTP and GTPyS microtubules

sured the intensity of the tip, seed lattice for GTP and GTPγS



Nucleotide Preference for End Binding Proteins

AIM: to investigate the binding affinity of EB proteins with GTP and GTPγS microtubules

- In microtubule polymerisation, GTP microtubules hydrolyse to make GDP which forms part of the lattice. EB proteins have a strong binding affinity for GDP
- EB proteins (EB2 in particular) showed a strong binding affinity for GTPγS microtubules.
- GTPγS microtubules are non-hydrolysable and very stable
- GTPγS microtubules imitate the GTP cap found on polymerising microtubules

Thank you!





