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## We Can Help

**Better performance with Pharma MMC  
amorphous drug formulations offerings**



Give existing products extended life and improved performance.



Facilitate novel drug development with one formulation from pre-clinical, through clinical and to commercial stage.



For more information about Disruptive Pharma and Pharma MMC please visit [disruptivepharma.com](http://disruptivepharma.com)

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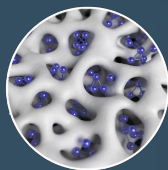
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## Pharma MMC

Pharma grade mesoporous magnesium carbonate (**Pharma MMC**) is a patented, safe and soluble drug delivery system that can be used to stabilize poorly soluble drugs in an amorphous state with beneficial oral absorption properties. Further, the controlled particle size of the drug loaded Pharma MMC ensures excellent flowability and downstream processing properties.

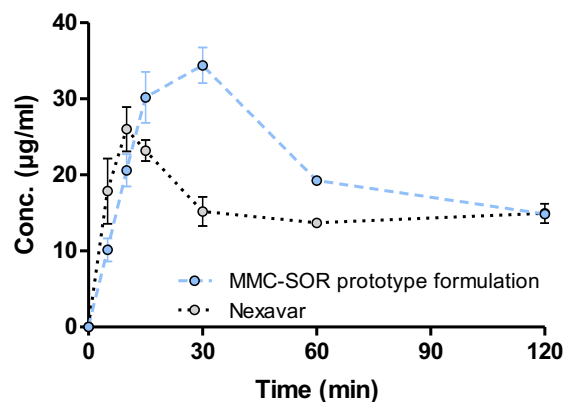


## Superior performance

### Drug Product offering exemplified

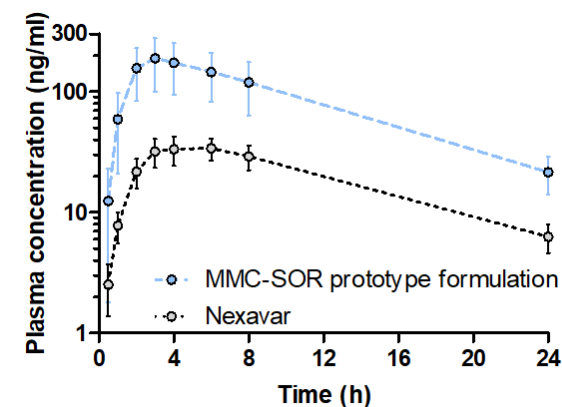
Sorafenib loaded onto Pharma MMC in an amorphous state exhibit faster release and absorption leading to better bioavailability compared to NEXAVAR® (commercial Rx).

### In vitro (example)



- Fast dissolution leading to supersaturation from all tested formulations
- Higher and slightly stabilized supersaturation for prototype formulation
- Recent MMC development: Further improved of dissolution profile and Cmax

## In vivo (example)



The Pharma MMC sorafenib formulation (MMC-SOR) results in >500% in vivo PK AUC compared to NEXAVAR®.

## Key takeaways

Compared to other mesoporous drug delivery technologies Pharma MMC offers an attractive combination of

- High drug load: 25-35% (potentially higher)
- Improved bioavailability
- Long term amorphous stability
- Superior flowability (good-excellent)
- No residual MMC after delivery of drug
- Rapid instant / modified release