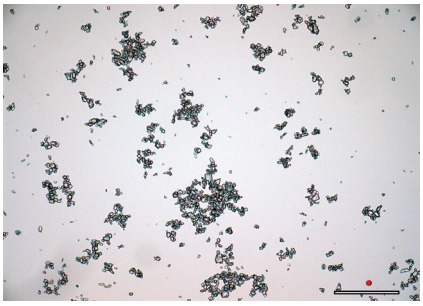
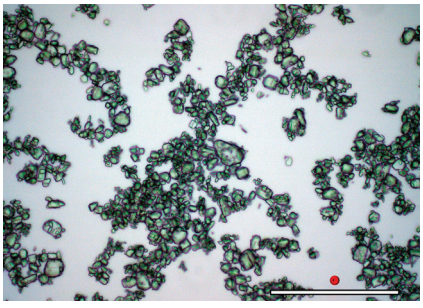
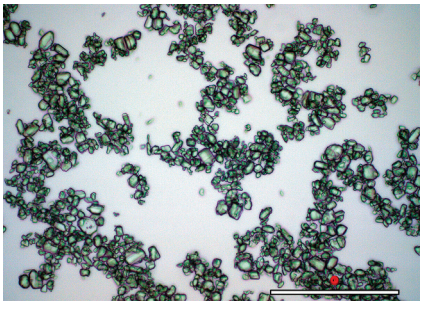


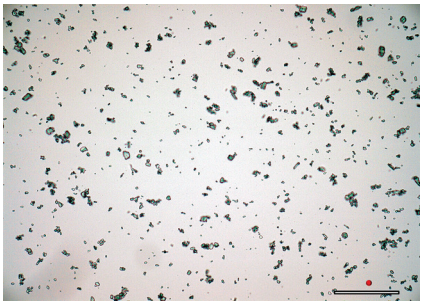
On-line Fig 1. Static image of MPA, prior to mixing with LA or plasma, at ×200 magnification. This demonstrates the crystalline nature of MPA and the tendency to form crystal aggregates. The white scale bar in the bottom right of the image represents 100 microns in length. The adjacent red circle represents the average size of a red blood cell at this magnification.



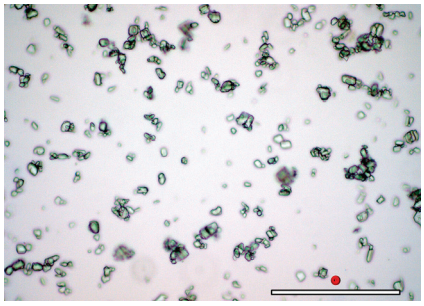
On-line Fig 2. Static image of MPA, prior to mixing with LA or plasma, at ×400 magnification. This demonstrates the typical range in size of MPA crystals. The white scale bar in the bottom right of the image represents 100 microns in length. The adjacent red circle represents the average size of a red blood cell at this magnification.



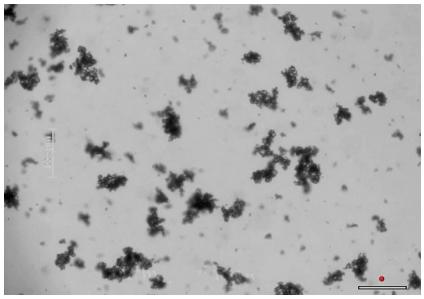
On-line Fig 3. Static image of MPA, after mixing with LA but without plasma, at ×400 magnification. This demonstrates that MPA crystals do not change in size, morphology or tendency to aggregate after mixing with LA. The white scale bar in the bottom right of the image represents 100 microns in length. The adjacent red circle represents the average size of a red blood cell at this magnification.



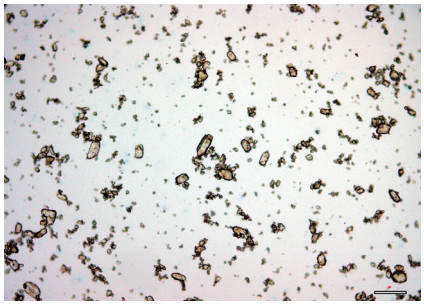
On-line Fig 4. Static image of MPA, after mixing with LA and plasma, at ×200 magnification. This demonstrates that MPA crystals do not change in size or morphology after mixing with plasma however there is a reduction in the tendency of MPA crystals to aggregate. The white scale bar in the bottom right of the image represents 100 microns in length. The adjacent red circle represents the average size of a red blood cell at this magnification.



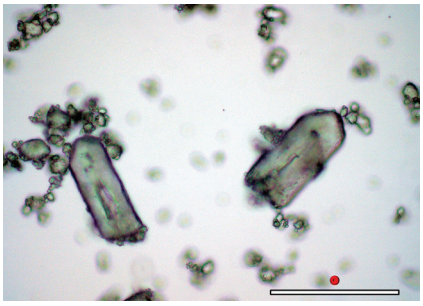
On-line Fig 5. Static image of MPA, after mixing with LA and plasma, at ×400 magnification. At this magnification the individual MPA crystals are better seen and are demonstrated to not change in size or morphology after mixing with plasma. In addition there is a reduction in the tendency of MPA crystals to aggregate when mixed with plasma. The white scale bar in the bottom right of the image represents 100 microns in length. The adjacent red circle represents the average size of a red blood cell at this magnification.



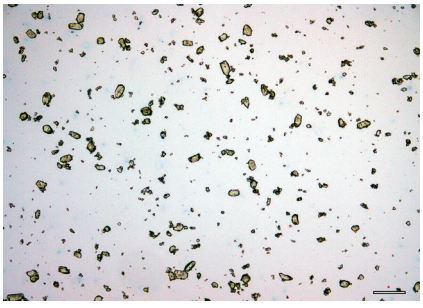
On-line Fig 6. Freeze frame from video 1 of MPA flowing through a 200 micron depth channel after mixing with LA. This demonstrates the large size of MPA aggregates prior to mixing with plasma. In addition it confirms that as crystal aggregates maintain their integrity in a dynamic environment they have embolization potential. The white scale bar in the bottom right of the image represents 100 microns in length. The adjacent red circle represents the average size of a red blood cell at this magnification. There is a separate scale bar on the left side of the image that is somewhat obscured.



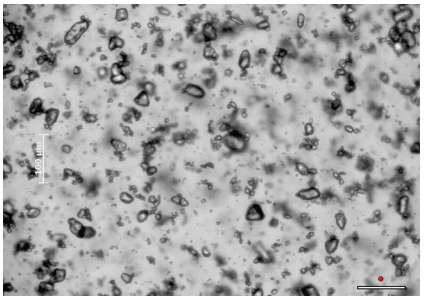
On-line Fig 7. Static image of TA, prior to mixing with LA or plasma, at ×100 magnification. At this low magnification the large range in the size of TA crystals can be seen. In addition a tendency to aggregate can also be identified. The white scale bar in the bottom right of the image represents 100 microns in length. The adjacent red circle represents the average size of a red blood cell at this magnification.



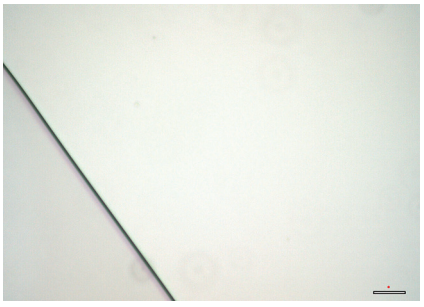
On-line Fig 8. Static image of TA, prior to mixing with LA or plasma, at ×400 magnification. At this high magnification the large size and rectangular brick like shape of TA crystals can be appreciated. The white scale bar in the bottom right of the image represents 100 microns in length. The adjacent red circle represents the average size of a red blood cell at this magnification.



On-line Fig 9. Static image of TA, after mixing with LA and plasma, at ×100 magnification. This demonstrates that TA crystals do not change in size or morphology after mixing with plasma however there is a reduction in the tendency of crystals to aggregate. The white scale bar in the bottom right of the image represents 100 microns in length. The adjacent red circle represents the average size of a red blood cell at this magnification.



On-line Fig 10. Freeze frame from video 3 of TA flowing through a 200 micron depth channel after mixing with LA. This demonstrates the high number of large crystals in TA and also the tendency of small crystals to aggregate. The white scale bar in the bottom right of the image represents 100 microns in length. The adjacent red circle represents the average size of a red blood cell at this magnification. There is a separate scale bar on the left side of the image.



On-line Fig 11. Static image of DSP, after mixing with LA, at ×100 magnification. The straight line on the left side of the image is the edge of the DSP droplet. As this is in focus it confirms we are focused at the correct depth to visualize any particulates that may be present. To the right of this line is the DSP preparation. There are no crystals or particulates. The white scale bar in the bottom right of the image represents 100 microns in length. The adjacent red circle represents the average size of a red blood cell at this magnification.