FINDING THE 'MAGIC PUDDING' IN THE THERMAL SPRAY INDUSTRY

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It is truly summer here in Melbourne, Australia, and one of my family's favorite things to do is to visit the local wildlife sanctuary to get acquainted with characters from the "Magic Pudding" (a 100-year-old children's book with Australian native animals). For those who are not familiar with the story, there is a magic pudding called Albert that will always reform into a whole pudding again no matter how much was eaten. Although it is a fairy tale, it got me thinking about what is the "magic pudding" for the field of thermal spray. Will surface engineering and thermal spray continue to flourish and renew itself into the future?

One only needs to look back at our long and rich history to realize that our "magic pudding" is passionate people. These "Alberts" have a strong passion for either finding a thermal spray solution to their engineering challenges or developing new surface engineering processes or new coating microstructures to replace old methods and drive thermal spray innovations. From the days of Schoop depositing lead coatings, our thirst for advancement of thermal spray technology has seen many formidable inventors and researchers. Some of these luminaries include H.S. Ingham (flame spray), J. Browning (HVOF), E. Muehlberger (LPPS), R. McPherson (microstructure), and M.L. Thorpe (APS). In 2018, we bid farewell to some of these people. Rest in peace, Prof. Philip Cheang and Dr. Dongming Zhu.

Building the framework to nurture more "Alberts" is important, hence the role that universities, institutes, and industries have is critical. New training centers like Australia's Training Center in Surface Engineering for Advanced Materials (SEAM) bring together these entities or ingredients to produce the magic pudding. The new generation of surface engineers and advanced technologies will no doubt be a renewed source of future research discoveries, bringing thermal spray to new heights of innovation and solving future engineering challenges.

While coediting the upcoming issue of *JTST,* which is focused on biomaterials, there was again a concerted effort in advancing our knowledge in coating deposition and characterization of these coatings. Given that the medical technology market is expected to grow at 4.5% per year, and achieve sales of $455 billion by 2018, this is certainly an important area for thermal spray researchers because coatings are employed in many medical devices and implants.

As we draw close to another year, I offer you my seasonal greetings and wish you and your family a happy new year. May the magic pudding in the thermal spray industry continue to grow.

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