Diffuse malignant peritoneal mesothelioma (DMPM) is an aggressive and rare form of cancer arising from the mesothelial lining of the peritoneum. Due to the latency period between asbestos exposure and disease progression, the peak in incidence of DMPM is likely to occur in the coming decade for many industrialized nations, with a multitude of industrial, medico-legal and health-related implications. Traditional therapeutic modalities such as systemic chemotherapy and radiotherapy have not been proven to be effective in the treatment of DMPM, and patients diagnosed with the disease have a life expectancy of less than 12 months. Combined treatment involving cytoreductive surgery (CRS) and hyperthermic intraperitoneal chemotherapy (HIPEC) has been utilized in several specialized centers around the world and has been found to be a feasible procedure with encouraging survival outcomes.