PI: David L. Morris
Institution: St George Hospital
Award Year: 2016
Project Title: “The effect of Bromelain and N-acetylcysteine on appendiceal adenocarcinoma and pseudomyxoma peritonei in vitro and LS174T in vivo: development of a novel mucolytic agent and progression to a phase I/II study”
Project Status: Active

Update 1 (12-2018)
2018 has been a very exciting year for the development of bromelain and acetylcysteine. We have further studied the intraperitoneal application of bromelain and acetylcysteine with or without chemotherapy agents. Not only have these produced encouraging efficacy data both in animals and the laboratory, but also have been able to show that this treatment can be given with safety. We have also studied the effect of our drug on coagulation parameters and have seen no clinically significant effect, even in our dose escalation studies. The animal data produced to date has allowed us to commence our clinical study of bromelain and acetylcysteine in inoperable mucinous peritoneal tumours, which has now treated 20 patients and we have seen both clinical and radiological evidence of responses, some of which are truly dramatic with no serious toxicity and reported improvement in quality of life. We were recently successful with our orphan drug designation application to the European Medicines Agency (EMA) and our Food & Drug Administration (FDA) application is under assessment. We plan to continue our animal model of bromelain and acetylcysteine, with or without chemotherapy; the cell viability studies of peritoneal fluid post HIPEC and are now expanding our clinical trial to sites in Europe and the USA.