Monoclonal Antibodies

The revolution in cancer care over the past decade was initially fueled by the use of Monoclonal Antibodies (MoAB's) starting with the use of rituximab, and trastuzumab. In myeloma, we were late to the game due to target identification and underlying Immune distinction that limited the efficiency of MoAB's tested initially. However, the last 5 years have seen the rapid growth of targets such as SLAM F7 (formerly known as CS1) CD38, and most recently antibodies targeting PD-1, PDL-1 and BCMA. All of these novel approaches, either alone or in combination with immunomodulatory agents, have changed the overall treatment landscape for relapsed myeloma patients, and are now being incorporated into management of newly diagnosed myeloma, maintenance therapy and even use in smoldering myeloma. The set result is that through the use of these new antibody based treatments we are at a critical point in the care of patients where we have the opportunity to improve overall response rate, depth of response, duration of response and increase the fraction of myeloma patients who are cured. Discussion of key targets for current and future use as well as data on emerging targets and future treatment strategies will be discussed.