M6, ATP Technology and Application

**(Christine Gebski, VP, of Product Management and Field Applications of Repligen)**

Perfusion is upstream processing which retains cells inside the bioreactor while continually removing cell waste products and media depleted of nutrients by cell metabolism. Fresh media is provided to the cells at the same rate as the spent media is removed. The most common means to achieve perfusion is the use of hollow fiber filtration. A biomanufactured cell product like a recombinant enzyme or a monoclonal antibody can be retained within the bioreactor if perfusion is done with an ultrafiltration membrane or continually harvested in a cell free fluid stream if perfusion is done with a microfiltration membrane. The XCell™ ATF System can be used with either membrane type to achieve perfusion. The module will provide technical details of the perfusion system and biopharmaceutical applications.



Before joining Repligen in 2015, Christine Gebski was Head of the POROS® Business Unit within the Bioproduction Division of Applied Biosystems/LIFE Technologies/Thermo Fisher Scientific, working with purification products, including POROS® and CaptureSelect® chromatography resins.  She managed Global Process Chromatography Applications for ten years, developing collateral and providing technical support, supporting new product development and manufacturing process improvement efforts. She also managed R&D, developing and commercializing three new chromatography resins. Before joining LIFE Technologies, Ms. Gebski was a Process Development Scientist for 15 years in the biotechnology industry, with roles in both development and engineering functions, including developing, scaling, transferring and validating downstream purification processes.  She received a B.S. in Biology from the University of Vermont and a M.S. in Biotechnology from the University of Massachusetts at Lowell.