



TAP
Biosystems



CCRM

Centre for Commercialization of Regenerative Medicine

New Collaboration Will Result in Optimal Media and Process Parameters for Affordable Stem Cell Therapies

December 3, 2012 -- Cambridge, UK and Toronto, Canada: TAP Biosystems, a leading supplier of innovative cell culture systems and consumables for life science applications, has joined the Centre for Commercialization of Regenerative Medicine's (CCRM) industry consortium to translate laboratory cell culture conditions into optimized processes and media for commercial production of cellular therapies.

TAP's ambr™ system, an advanced micro bioreactor that replicates the characteristics of bioreactors at a 10-15 mL micro scale, will be installed at CCRM to determine optimal media components and process conditions for culturing natural killer cells and human stem cells at scale. Since the cells are the final therapeutic product, there is a finer balancing act between cost and quality than with cells used to manufacture traditional biologics. This partnership will provide an understanding of how cells behave in scalable culture formats, in order to produce clinically relevant numbers using affordable manufacturing strategies. The collaboration will initially focus on immunotherapy applications with hopes of expanding into other cell therapy applications in future.

Dr. Peter Zandstra, CSO at CCRM, explained: "TAP will be part of a 20 company consortium that invests in intellectual property and advises on regenerative medicine bottlenecks and opportunities, and acts as a ready receptor for new technologies developed at CCRM. TAP and CCRM will work together to develop suspension culture processes in bioreactors that can be translated for commercial manufacture of stem cell therapies. The goal is to reduce costs without compromising cell quality."

Zandstra continued: "We chose to collaborate with TAP because its expertise in developing the ambr system, with its unique ability to mimic the environment of large bioreactors, shows a deep understanding of the large number of parameters that could affect cell growth. TAP will work with us to develop the ambr technology for use with stem cells and we're certain that ambr, with its ability to test multiple parameters at the same time, will result in compressed development timelines."



**TAP
Biosystems**



CCRM

Centre for Commercialization of Regenerative Medicine

Kim Bure, North American Business Manager for Regenerative Medicine at TAP Biosystems said: "The cost of generating and differentiating stem cells at clinically relevant scale is currently prohibitive, with media requirements sometimes in the range of hundreds of dollars per small scale culture. We believe our collaboration with CCRM will assist in defining a process to identify the key factors and optimum conditions for culture, in turn driving down the costs associated with scale-up and further allowing the production of high quality cell therapies within acceptable reimbursement ranges."

Bure concluded: "CCRM is using an intelligent approach by automating design of experiment at an early stage, and we're pleased that this innovative translation centre has chosen to work with us as part of that strategy. Through our collaboration, the ambr system and systems we develop from this partnership could be instrumental in helping drive down manufacturing costs and ultimately achieving the true goal of enabling these effective therapies to more rapidly reach the market and be made accessible to a wider number of patients."

Scientists wanting to discuss how the ambr system could impact their stem cell research can speak to CCRM representatives in attendance and TAP's experts at their booth at the World Stem Cell Summit, on 3rd -5th December at West Palm Beach, Florida.

-30-

For Further Information Contact:

Matthew Walker, Head of Communications, TAP Biosystems

Tel: +44 (0) 1763 227200

matthew.walker@tapbiosystems.com Web: www.tapbiosystems.com

Stacey Johnson, Centre for Commercialization of Regenerative Medicine

Mobile: + 647.309.1830

stacey.johnson@ccrm.ca Web: www.ccrm.ca

About TAP Biosystems

TAP Biosystems (the new corporate identity of The Automation Partnership) provides innovative automation systems and consumables to improve productivity in life science research, development and production.

For over 20 years TAP Biosystems has been the leader in the design and development of automated cell culture and processing systems with applications in bioprocessing, drug discovery and regenerative medicine. Systems include ambr, Compact SelecT, Fill-It and RAFT.



**TAP
Biosystems**



CCRIM

Centre for Commercialization of Regenerative Medicine

TAP also develops custom solutions in the emerging fields of biologics and cell-based therapies, including stem cell research and tissue engineering.

TAP Biosystems is a privately-owned company with headquarters near Cambridge, UK and a sales and support facility near Wilmington, Delaware, USA.

www.tapbiosystems.com

About the Centre for Commercialization of Regenerative Medicine (CCRIM)

CCRIM, a Canadian not-for-profit organization funded by the Government of Canada's Networks of Centres of Excellence program and six academic partners, supports the development of technologies that accelerate the commercialization of stem cell- and biomaterials-based technologies and therapies. A network of academics, industry and entrepreneurs, CCRIM aims to translate scientific discoveries into marketable products for patients. CCRIM launched in Toronto's Discovery District on June 14, 2011.