

IDRC (Infectious Disease Research Center) Newsletter March 2018

IDRC Purpose:

To Defeat Global Health Threats
We Do the Difficult



IDRC Values:

Creativity, Knowledge,
Achievement, Honesty,
Competency

BioMARC (Biopharmaceutical Manufacturing and Academic Research Center) News

HIV Vaccine Project Contract Win– BioMARC has won a large new contract to scale up the manufacturing process for an innovative new HIV vaccine candidate being developed by Seoul, South Korea based biotechnology company Sumagen Co, Ltd. The key task of this new contract is to continue development work by bringing the manufacturing process to full scale volume. “There are very few places with the capabilities and infrastructure to tackle a project of this scientific complexity with such important biosafety considerations,” BioMARC Director John Wyckoff, PhD noted. When a new drug candidate transitions from the research stage into higher volume manufacturing, there are a number of technical and regulatory issues that can arise. This is where BioMARC can apply its expertise to help move vaccine candidates further down the path toward testing and potential approval. [Full press release is available here.](#) Contact: john.wyckoff@colostate.edu



New Quantum Cell Expansion System

Cell Therapy Manufacturing Expansion– using funding from the Colorado Office of Economic Development and International Trade (COEDIT), BioMARC has acquired a new Terumo BCT Quantum automated cell expansion system and will establish a new competency and service offering around the manufacturing of cell therapies. An initial feasibility study in collaboration with Professor of Equine Surgery David Frisbie and local company Advanced Regenerative Therapies (ART, Inc.) is being executed to develop standardized methods to isolate and grow Mesenchymal Stem Cells under GMP conditions. By having these processes established as a standard methodology including QA/QC with associated assay validation, it could allow for further distribution of the product and possible expansion into allogeneic use. Procedures being developed are for the veterinary market, but could also apply to humans in the future to address reduction in swelling or vascular leakage due to traumatic injury and the generation of repair processes in damaged ligaments and tendons. Contact: john.wyckoff@colostate.edu

BioMARC on the Road– efforts to fill the BioMARC project funnel are off to a strong start in calendar year 2018, with travel completed to the JP Morgan Life Sciences conference in San Francisco in January and an exhibit at the American Society for Microbiology BioThreats conference in Baltimore in February. Upcoming Conferences: World Vaccine Congress in Washington D.C. April 2 - 5 and PEGS (Protein Engineering Summit) in Boston April 30 - May 4. Contact: howie.carpenter@colostate.edu



New BioMARC Exhibit Display



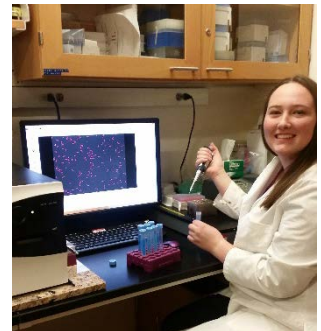
RIC (Research Innovation Center) News

Vivaldi Biosciences Reports Influenza Vaccine Breakthrough— longtime RIC tenant co-founded by CSU grad Dr. Douglass Given and featuring CSU grad Amy Aspelund heading R&D, [reported exciting new research results](#). Vivaldi's deltaFLU influenza vaccine candidate is based on the reverse genetics manipulation of the influenza nonstructural protein (NS1) pioneered by Vivaldi CSO Dr. Thomas Muster in collaboration with Drs. Peter Palese and Adolfo García-Sastre at the Icahn School of Medicine at Mount Sinai in New York. A recent nonclinical study using Vivaldi's deltaFLU vaccine showed broad cross-protection against distantly related influenza strains, and superior protection versus a leading licensed vaccine. deltaFLU already has been evaluated in Phase 1 and 2 clinical studies showing it is safe, immunogenic, and induces antibodies that are broadly cross-reactive against mismatched influenza viruses. Vivaldi will present the results of the nonclinical study at the upcoming World Vaccine Congress in Washington D.C. April 2-5. Given the current difficult flu season, it is expected that these results will generate a lot of interest in this new approach.

Contact: amy.Aspelund@vivaldibiosciences.com

MPTI Kicks Off CSU / RIC Collaborative Student Project Program

Membrane Protective Technologies, Inc (MPTI), a RIC tenant whose GameteGuard™ products protect sperm from the damages of freezing and thawing in order to improve fertility in livestock reproduction, and CSU Biomedical Science Masters student Amy Scharf have been awarded a \$10K grant to investigate how different GameteGuard™ formulations (containing various antioxidants) can improve in-vitro embryo production. The maturation of embryos generates a significant amount of reactive oxygen species and thus the extracts are expected to be highly beneficial. In collaboration with MPTI, Amy will perform the work in the lab of CSU Special Assistant Professor in Animal Reproduction Jennifer Barfield. If the project succeeds, it could lead to a full time position. The CSU / RIC Collaborative Student Program is sponsored by the IDRC and the Office of the Vice President for Research in order to foster university / private company interactions in Northern Colorado. MPTI contact Lisa Herickoff: lisah@membraneprotect.com; Student Project Program contact: cathy.griffin@colostate.edu



Amy Scharf at work

IDRC General News

With the September 2017 [hire of Dr. John Wyckoff as BioMARC director](#), the IDRC leadership team has been in place for six months. "It feels great to have the full team working together. Thanks to the hard work of all of our IDRC associates and the world class infrastructure here at the foothills campus of CSU, the IDRC is off to a great start to calendar year 2018," Executive Director Dr. Ray Goodrich commented. "We invite all interested potential partners from academia, government, or industry to reach out to any member of the team. We are always open to discussions about new projects and partnerships."



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