

## RESEARCH BRIEF FOR AFFILIATES

<b>Name</b>	Matthew B. Wheeler	
<b>Department/Group:</b>	Animal Sciences	
<b>Title(s)</b>	Professor	
<b>Emphasis</b>	<b>Food Systems</b>	<b>Food Security</b>
	<input checked="" type="checkbox"/> Production <input type="checkbox"/> Post Farm <input type="checkbox"/> Consumer <input type="checkbox"/> Sustainability <input checked="" type="checkbox"/> Social/Economic <input type="checkbox"/> Legal/Policy	<input checked="" type="checkbox"/> Availability of food <input type="checkbox"/> Access to food <input type="checkbox"/> Utilization of Food <input checked="" type="checkbox"/> Nutrition <input checked="" type="checkbox"/> Stability of availability/access/utilization
<p>Dr. Wheeler’s work directly impacts the production of sufficient, safe, and nutritious food. His research into developing tropical adapted dairy animals has significant promise to helping to alleviate hunger in developing countries where dairy products are relied upon as protein sources.</p>		
<b>Countries or regions of collaborations</b>		
Panama, Brazil, Dominican Republic, Honduras, Rwanda		
<b>Publication and project highlights</b>		
<p>Wheeler, M.B., Hurley, W.L., Lane, S.J., Mosley, J., Bressner, G.E., Monaco, E., Wilson, S.M. (2009) Risk analysis of alpha-lactalbumin transgene transfer to non-transgenic control animals during rearing and breeding. <i>Reproduction, Fertility and Development</i> 21:252-253.</p> <p>Wheeler, M.B., Hurley, W.L., Lane, S.J., Mosley, J., Bressner, G.E., Monaco, E., Cake, M.M. (2010) Risk analysis of alpha-lactalbumin transgene transfer to non-transgenic control animals during rearing, breeding, parturition and lactation <i>Reproduction, Fertility and Development</i> 22: 436.</p> <p>Chen, J.R.S., Nasser, L.F., Penteadó, L., Mendizabal, M., Basso, A.C., Pontes, J.H.F., Bionaz, M., Wheeler, M.B. (2011). Comparison of commercial in vitro embryo production of Brahman donors under Brazilian versus Panamanian management. <i>Reproduction, Fertility and Development</i> 23(1):210-210.</p> <p>Wheeler, M.B., Mosely, J.F., Hurley, W.L. 2013. Evaluation of risks from environmental contact with transgenic livestock. <i>10:3</i>, p.356, Jul./Sept. 2013.</p> <p>Nagele, A., Gomís Jr., E., Ruiz, A., Nasser, L.F., Feli, S., Rodríguez, E., Mojica, K., Basso, A.C., Pontes, J.H.F., Rabel, R.A.C., Rodríguez-Zas, S.L., Wheeler, M.B. 2014. Comparison of Commercial In Vitro Embryo Production and Pregnancy Rates of Brahman Donors in Panama vs. Dominican Republic. <i>Reproduction, Fertility and Development</i> 26:185.</p> <p>Nasser, L.F., Felix, S., Rodriguez, E., Mojica, K., Gomís Jr., E., Basso, A.C., Pontes, J.H.F., Rabel, R.A.C., Wheeler, M.B. 2014. Comparison of Pregnancy Rates of Fresh In Vitro -Produced Bos Indicus Embryos Produced in The Same Laboratory But Collected and Transferred In Panama or the Dominican Republic <i>Reproduction, Fertility and Development</i> 26;164.</p> <p>Production of recombinant immunogenic proteins in the milk of genetically engineered animals for development of a vaccine against <i>Brucella abortus</i>. PI: Dr. Luciana R. Bertolini (UNIFOR); Co-PI: Dr. Matthew B. Wheeler (UIUC), Dr. Marcelo Bertolini (UNIFOR), Dr. Charles Long (TAMU), Dr. Angela Arenas (TAMU), and Dr. Scott Fahenkrug (Recombinetics Inc.) Sponsor: Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq/Brazil),</p>		

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**ACES** Office of  
International Programs  
INTERNATIONAL FOOD SECURITY INITIATIVE (IFSI)

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Ministry of Science and Technology, Brazil?, Period: December 2013 - December 2016 (funded).

Single dose, multivalent vaccine for zoonotic diseases, PI: Charles R. Long (TAMU), Co-PI: Matthew Wheeler (UIUC), Luciana Bertolini (UNIFOR), Angela Arenas (TAMU-HSC), Bill and Melinda Gates Foundation Grand Challenges, submitted 11/2013, (Funded).

SENACYT-BORN ANIMAL BIOTECHNOLOGY CORP., Panama City, Panama. Project number - P-146 Vitrificación de Embriones Bovinos producidos In Vitro Programa de Competitividad y Apertura Comercial Fase I

Development of Tropical-Adapted Cattle for Improved Nutrition, Food and Income Security, Mathew B. Wheeler, Luiz Nasser and Marcelo Bertolini

Collaborating Institutions:

Born Animal Biotechnology, City of Knowledge, Panama City, Panama;

EmbrioDom, , Santo Domingo, Dominican Republic;

University of Fortaleza (UNIFOR), Fortaleza CE, Brazil;

University of Illinois, Department of Animal Sciences, Urbana, IL, USA

Participating Countries:

Panama, Dominican Republic, Brazil, Honduras, USA