# ImmuCell

## ImmuCell Achieves USDA Approval of New Product Claim to Prevent Rotavirus Infections

***FOR IMMEDIATE RELEASE***

PORTLAND, Maine – November 13, 2017 – **ImmuCell Corporation (Nasdaq: ICCC)**, a growing animal health company that develops, manufactures and markets scientifically-proven products that improve the health and productivity of dairy and beef cattle, today announced that the USDA, Center for Veterinary Biologics, approved licensure for the first calf-level scours preventative with claims against all three newborn calf scours (diarrhea) causing pathogens, *E. coli*, coronavirus and rotavirus.

The new product, **First Defense® Tri-Shield™**, combines the *E. coli* and coronavirus antibodies contained in ImmuCell's legacy product, **First Defense®**, with a guaranteed minimum level of rotavirus antibody content in one preventative dose. This unique breadth of claims further differentiates the ImmuCell product from competitive products on the market that have claims against both coronavirus and rotavirus or just *E. coli* or just coronavirus, but not all three. Preventing scours in newborn calves reduces the need to use treatment antibiotics later in life. This new product will be available in a gel tube delivery format.

"This is a very important achievement by our development and manufacturing teams after many years of challenging work," commented Michael F. Brigham, President and CEO. "Generating a consistent level of rotavirus antibodies through our proprietary hyper-immunization program is not easy. This result utilizes the novel technology that we have exclusively licensed from the Baylor College of Medicine in Houston."

No other calf-level product contains all three important health claims in a one-time preventative dose. With this expanded claim set, the Company can compete more effectively against dam-level scours vaccine products that are given to the cow to improve the quality of her colostrum (first milk) that is fed to the newborn. However, it is generally believed that only 80% of animals respond to a vaccine, which leaves about 20% of calves unprotected. Additionally, our research suggests that treatment protocols for dam-level vaccine programs are not always followed, leaving even more calves compromised. The Company's new marketing campaign, '**Beyond Vaccination™**', suggests that by delivering immediate immunity directly to the calf via **Tri-Shield™**, producers can save needles and labor for vaccines that are more critical to cow health.

"'**Beyond Vaccination™**' is a bold claim but very valid for this product," commented Ms. Bobbi Jo Brockmann, Vice President of Sales & Marketing. "For the longest time, the primary tool to help combat scours was vaccinating the cow with a scours vaccine intended to protect the

calf through colostrum, but when you depend on a dam-level scours vaccine, you need to spend that money before you know if you have a viable, valued calf. With **First Defense® Tri-Shield™**, every calf is equally protected and that investment can be targeted to the calves that are most critical to the operation. This, in turn, can free up space in the cow's vaccination schedule to optimize her immune response to vaccines that are most critical to her health. With **Tri-Shield™**, we are ready to break tradition with a better way to protect calves."

**Update on New Mastitis Product:**

A Certificate of Occupancy was issued by the City of Portland, Maine on October 30, 2017 for the Company's Nisin production facility. On November 8, 2017, the Company held a 'ribbon-cutting' ceremony to celebrate the completion of the construction phase of this $21 million project. This facility will be used by ImmuCell to produce purified, pharmaceutical-grade Nisin Drug Substance at commercial scale. Adherence to the Company's anticipated timeline could lead to potential approval by the end of 2019 with subsequent market launch.

**Conference Call:**

Interested parties can access the conference call scheduled by the Company to review the financial results for the third quarter of 2017 by dialing (844) 855-9502 (toll free) or (412) 317-5499 (international) at 4:30 PM ET today. A teleconference replay of the call will be available for six days at (877) 344-7529 (toll free) or (412) 317-0088 (international), confirmation #10113568.

**About ImmuCell:**

ImmuCell Corporation's (**Nasdaq: ICCC**) purpose is to create scientifically-proven and practical products that improve the health and productivity of dairy and beef cattle. ImmuCell has developed products that provide significant, immediate immunity to newborn dairy and beef livestock. The Company is developing a novel treatment for mastitis, the most significant cause of economic loss to the dairy industry. Press releases and other information about the Company are available at: (http://www.immucell.com).

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**Safe Harbor Statement:**

This Press Release contains "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. Such statements include, but are not limited to, any statements relating to: projections of future financial performance; the scope and timing of ongoing and future product development work and commercialization of our products; future costs of product development efforts; the estimated prevalence rate of subclinical mastitis; the expected efficacy of new products; future market share of and revenue generated by current products and products still in development; future sources of financial support for our product development, manufacturing and marketing efforts; the future adequacy of our own manufacturing facilities

or those of third parties with which we have contractual relationships to meet demand for our products on a timely basis; the future adequacy of our working capital and the availability and cost of third party financing; timing and future costs of a facility to produce the Drug Substance (our active pharmaceutical ingredient, Nisin); the timing and outcome of pending or anticipated applications for regulatory approvals; future regulatory requirements relating to our products; future expense ratios and margins; future compliance with bank debt covenants; costs associated with sustaining compliance with cGMP regulations in our current operations and attaining such compliance for the facility to produce the Drug Substance; factors that may affect the dairy and beef industries and future demand for our products; our effectiveness in competing against competitors within both our existing and our anticipated product markets; the cost-effectiveness of additional sales and marketing expenditures and resources; the accuracy of our understanding of our distributors' ordering patterns; anticipated changes in our manufacturing capabilities and efficiencies; anticipated competitive and market conditions; and any other statements that are not historical facts. Forward-looking statements can be identified by the use of words such as "expects", "may", "anticipates", "aims", "intends", "would", "could", "should", "will", "plans", "believes", "estimates", "targets", "projects", "forecasts" and similar words and expressions. In addition, there can be no assurance that future developments affecting us will be those that we anticipate. Such statements involve risks and uncertainties, including, but not limited to, those risks and uncertainties relating to difficulties or delays in development, testing, regulatory approval, production and marketing of our products, competition within our anticipated product markets, customer acceptance of our new and existing products, product performance, alignment between our manufacturing resources and product demand, the uncertainties associated with product development and Drug Substance manufacturing, actual as compared to expected or estimated costs of expanding our manufacturing facilities, our potential reliance upon third parties for financial support, products and services, changes in laws and regulations, decision making by regulatory authorities, possible dilutive impacts on existing stockholders from any equity financing transactions in which we may engage, currency values and fluctuations and other risks detailed from time to time in filings we make with the Securities and Exchange Commission, including our Quarterly Reports on Form 10-Q, our Annual Reports on Form 10-K and our Current Reports on Form 8-K. Such statements are based on our current expectations, but actual results may differ materially due to various factors, including the risk factors discussed above.