

## Matthew Steven MacDougall

- Affiliate, Department Funds
- Fellow in Pediatrics - Allergy and Clinical Immunology

### Bio

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#### CLINICAL FOCUS

- Pediatrics
- Fellow

#### PATENTS

- Clarke R, Merrill BJ, MacDougall MS, Pennington HM, Shy BR.. "United States Patent WO2019067322 CRISPR/CAS SYSTEM AND METHOD FOR GENOME EDITING AND MODULATING TRANSCRIPTION.", University of Illinois

### Publications

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#### PUBLICATIONS

- **CD39 delineates chimeric antigen receptor regulatory T cell subsets with distinct cytotoxic & regulatory functions against human islets** *FRONTIERS IN IMMUNOLOGY*  
Wu, X., Chen, P., Whitener, R. L., MacDougall, M. S., Coykendall, V. N., Yan, H., Kim, Y., Harper, W., Pathak, S., Iliopoulou, B. P., Hestor, A., Saunders, D. C., Spears, et al  
2024; 15: 1415102
- **Infant in extremis: respiratory failure secondary to lower airway infantile hemangioma.** *BMC pediatrics*  
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- **Sequential Activation of Guide RNAs to Enable Successive CRISPR-Cas9 Activities** *MOLECULAR CELL*  
Clarke, R., Terry, A. R., Pennington, H., Hasty, C., MacDougall, M. S., Regan, M., Merrill, B. J.  
2021; 81 (2): 226-+
- **Intracellular Ca<sup>2+</sup> Homeostasis and Nuclear Export Mediate Exit from Naive Pluripotency** *CELL STEM CELL*  
MacDougall, M. S., Clarke, R., Merrill, B. J.  
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- **Enhanced Bacterial Immunity and Mammalian Genome Editing via RNA-Polymerase-Mediated Dislodging of Cas9 from Double-Strand DNA Breaks** *MOLECULAR CELL*  
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- **Co-incident insertion enables high efficiency genome engineering in mouse embryonic stem cells** *NUCLEIC ACIDS RESEARCH*  
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- **Topical Vapocoolant-Associated Vaso-occlusive Event in a 10-year-old with Sickle Cell Disease.** *Pain management nursing : official journal of the American Society of Pain Management Nurses*  
Kothamasu, A., MacDougall, M. S., Mallard, J., Hsu, L. L.  
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- **The NAMPT Promoter Is Regulated by Mechanical Stress, Signal Transducer and Activator of Transcription 5, and Acute Respiratory Distress Syndrome-Associated Genetic Variants** *AMERICAN JOURNAL OF RESPIRATORY CELL AND MOLECULAR BIOLOGY*  
Sun, X., Elangovan, V., Mapes, B., Camp, S. M., Sammani, S., Saadat, L., Ceco, E., Ma, S., Flores, C., MacDougall, M. S., Quijada, H., Liu, B., Kempf, et al  
2014; 51 (5): 660-667