Stanford



Matthew Steven MacDougall

- Postdoctoral Medical Fellow, Immunology and Allergy
- Fellow in Pediatrics - Ped Stem Cell Transplantation

Bio

CLINICAL FOCUS

- Fellow
- Allergy and Immunology
- Pediatrics

PROFESSIONAL EDUCATION

- Doctor of Philosophy, University of Illinois Chicago (2021)
- Bachelor of Science, Unlisted School (2010)
- Master of Science, University of Toronto (2012)
- Doctor of Medicine, University of Illinois Chicago (2021)
- Residency, Stanford University , Pediatrics (2024)
- PhD, University of Illinois College of Medicine , Biochemistry and Molecular Genetics (2021)
- MD, University of Illinois College of Medicine (2021)
- MS, University of Toronto , Laboratory Medicine and Pathobiology (2012)
- BScH, Queen's University , Biochemistry (2010)

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
- Clarke R, Merrill BJ, MacDougall MS, Balanis NGK, DePooter R, Harding C, Mancinelli G.. "United States Patent PCT/US2023/013240 SYSTEMS FOR CELL PROGRAMMING AND METHODS THEREOF", Syntax Bio, Jun 1, 2024
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Publications

PUBLICATIONS

- **Immunodeficiency: Gene therapy for primary immune deficiency.** *Allergy and asthma proceedings*
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- **CD39 delineates chimeric antigen receptor regulatory T cell subsets with distinct cytotoxic & regulatory functions against human islets** *FRONTIERS IN IMMUNOLOGY*
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- **Intracellular Ca2+ Homeostasis and Nuclear Export Mediate Exit from Naive Pluripotency** *CELL STEM CELL*
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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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- **Evaluating the effect of age and comorbidity on dupilumab-dependent immunoglobulin E reduction in children with food allergy.** *Allergy and asthma proceedings*
  Afzal, S. Y., MacDougall, M. S., Lu, D., McGhee, S. A.
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- **Case Report: Effective IL-4/IL-13 axis suppression and resolution of severe atopic dermatitis by dupilumab monotherapy in a patient with IPEX syndrome.** *Frontiers in immunology*
  Alshanti, M., MacDougall, M. S., Gokbak, M. N., Ramachandran, A., Alzaabi, A. A., Alexander, J. L., Bacchetta, R., Shendi, H. M.
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- **Integration of the naive pluripotency gene network with the response to GSK3 inhibition by Tcf7l1-driven enhancer decommissioning.** *Stem cell reports*
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- **Infant in extremis: respiratory failure secondary to lower airway infantile hemangioma.** *BMC pediatrics*
  MacDougall, M. S., Afzal, S. Y., Freedman, M. S., Han, P.
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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*
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