

# Ryan Daniel Cordner

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## EDUCATION

- Cedars-Sinai Medical Center, PhD 2016
- Biomedical Sciences and Translational Medicine
  - Dissertation: "The role of *CD8 T cell sialylation* in glioma immunity and neurodegeneration"
- Brigham Young University, BS 2010
- Major: Clinical Laboratory Science

## Professional Experience

### Teaching

*Brigham Young University, Assistant Teaching Professor* 2016-Present

### Courses Taught

MMBio 392 – Hematology  
MMBio 393 – Immunohematology and Coagulation Theory  
MMBio 394 – Practical Hematology  
MMBio 395 – Practical Immunohematology and Coagulation  
MMBio 406 – Clinical Chemistry  
MMBio 409 - Hematology  
MMBio 410 – Hematology Laboratory  
MMBio 411 – Molecular Diagnostics  
MMBio 422 – Pathophysiology and Laboratory Diagnostics in Clinical Chemistry  
MMBio 423 – Pathophysiology and Laboratory Diagnostics in Clinical Chemistry and Molecular Biology  
MMBio 424 – Diagnostic Techniques in Clinical Chemistry  
MMBio 424 – Diagnostic Techniques in Clinical Chemistry and Molecular Biology  
MMBio 496R – Clinical Experience  
MMBio 551R – Current Topics in Microbiology and Molecular Biology

### Clinical

*Brigham Young University Student Health Center, COVID-19 Lab Supervisor* 2020-Present

- Help set up and operate the high complexity CLIA laboratory
- Oversee and train students performing COVID-19 PCR testing
- Maintain lab records including staff training, QC, and QA documents

*Primary Children's Medical Center, Medical Laboratory Scientist* 2010-2011

- Performed analysis of clinical specimens in the areas of hematology and clinical chemistry.
- Assisted with interim quality assurance laboratory inspections.
- Performed preventative maintenance and quality control testing on clinical analyzers.

*Primary Children's Medical Center, Student Intern* 2010

- Received training and performed clinical testing in the areas of Hematology, Clinical Chemistry, Microbiology, Blood Transfusion, Point of Care Testing, Phlebotomy, and Quality Assurance.

## Research

*Cedars-Sinai Medical Center, Graduate Student, Chris Wheeler Laboratory* 2011-2016

- Discovered the immunological impact of IDH1 mutation on dendritic cell vaccines for gliomas.
- Described the changes in T cell sialylation found in neurodegeneration and traumatic brain injury.

*Utah Valley Regional Medical Center, Stroke Research Team Member* 2011

- Conceived, designed, and carried out a study to identify predictors of atrial fibrillation in stroke patients.

*Mayo Clinic, Summer Undergraduate Research Fellow, Keith Knutson Laboratory* 2009

- Evaluated the efficacy of adding PD-1 blockade to a tripeptide vaccine in a mouse model of breast cancer.

*BYU, Research Assistant, Laura Bridgewater Laboratory* 2008-2010

- Performed site directed mutagenesis and yeast two hybrids to screen ROC1 and ROC2 binding with the nuclear variant of BMP4.
- Conceived, designed, and carried out a study to evaluate the neurological function of nuclear variant BMP2 KO mice.

## Abstracts, Publications and Presentations

### Abstracts

1. **Cordner R, Dunn C, Davis M.** 2018. The Education Gap in Clinical Microbiology. Abstract for poster presentation, American Society for Clinical Laboratory Science Annual Meeting, San Diego, CA.

2. Adams J, Davis M, **Cordner R**. 2018. Evaluating the Gap between Training Programs and Hospitals in Medical Laboratory Science Chemistry Testing. Abstract for poster presentation, American Society for Clinical Laboratory Science Annual Meeting, San Diego, CA.
3. **Cordner R**, Jhun M, Panwar A, Wang H, Yeager N, Murali R, McAbee J, Mardiros A, Takei A, Fan X, Jouanneau E, Black K, Wheeler C. 2016. IDH1 Modulates the CD8 T cell Response to Glioma. Abstract for oral and poster presentation, St. Jude National Graduate Student Symposium, Memphis, TN.
4. **Cordner R**, Jhun M, Panwar A, Wang H, Yeager N, Butte P, McAbee J, Mardiros A, Takei A, Fan X, Jouanneau E, Black K, Wheeler C 2013. IDH1 Modulates the Immune Response to Glioblastoma. Abstract for oral presentation, Immunology LA 2014, Los Angeles, CA.
5. **Cordner R**, Jhun M, Panwar A, Wang H, Yeager N, Butte P, McAbee J, Mardiros A, Takei A, Fan X, Jouanneau E, Black K, Wheeler C. 2013. IDH1 Modulates the Immune Response to Glioblastoma. Abstract for poster presentation, Society for Neuroscience Annual Meeting, San Diego, CA.
6. **Cordner R**, Jhun M, Panwar A, Wang H, Yeager N, McAbee J, Mardiros A, Takei A, Fan X, Jouanneau E, Black K, Wheeler C. 2013. IDH1 Modulates the Immune Response to Glioblastoma. Abstract for poster presentation, AACR Annual Meeting, Washington D.C.
7. **Cordner R**, Ventura JS, Blickenstaff JW, Walther CK, Mayo JL, Felin JE, Andreason B, Wallace NB, Barrow JR, Edwards JG, Capecchi MR, Bridgewater LC. 2010. Mice Bearing a Targeted Mutation of nBmp2 Display Decreased Memory Capabilities. Abstract for poster presentation, Experimental Biology, Anaheim, CA.
8. **Cordner R**, Karyampudi L, Knutson KL. 2009. Efficacy of PD-1 Blockade in a Breast Cancer Vaccine Model. Abstract for Oral Presentation, Mayo Clinic, Rochester, MN.
9. **Cordner R**, Loos TJ, McCune BC, Bridgewater LC. 2009. ROC1 and ROC2: Interactions with the Nuclear Variant of Bmp4. Abstract for poster presentation, Experimental Biology, New Orleans, LA.
10. **Cordner R**, Loos TJ, Bridgewater LC. 2009. ROC1 and ROC2: Interactions with the Nuclear Variant of Bmp4. Abstract for poster presentation, Utah Conference of Undergraduate Research, Salt Lake City, UT.

## Publications

1. Jhun M, Panwar A, **Cordner R**, Irvin DK, Veiga L, Yeager N, Pechnick R, Schubloom H, Black KL, Wheeler CJ. 2020. CD103 Deficiency Promotes Autism (ASD) and Attention-Deficit Hyperactivity Disorder (ADHD) Behavioral Spectra and Reduces Age-Related Cognitive Decline. *Frontiers in Neurology* 11:557269.
2. Panwar A, Jhun M, Rentsendorj A, Mardiros A, **Cordner R**, Birch K, Yeager N, Duvall G, Koronyo-Hamaoui M, Cohen RM, Ley E, Black KL, Wheeler CJ. 2020. Functional recreation of age-related CD8 T cells in young mice identifies drivers of aging- and human-specific tissue pathology. *Mechanisms of Ageing and Development* 191:111351.

3. **Cordner** RD, Friend LN, Mayo JL, Badgley C, Wallmann A, Stallings CN, Young PL, Miles DR, Edwards JG, Bridgewater LC. 2017. The BMP2 nuclear variant, nBMP2, is expressed in mouse hippocampus and impacts memory. *Scientific Reports* 7:46464.
4. Junes-Gill KS, Lawrence CE, Wheeler CJ, **Cordner** R, Gill TG, Mar V, Shiri L, Basile LA. 2014. Human hematopoietic signal peptide-containing secreted 1 (hHSS1) modulates genes and pathways in glioma: implications for the regulation of tumorigenicity and angiogenesis. *BMC Cancer* 14:1920.
5. Jouanneau E, Black KL, Veiga L, **Cordner** R, Goverdhana S, Zhai Y, Zhang X, Panwar A, Mardiros A, Wang H, Gragg A, Zandian M, Irvin DK, Wheeler CJ 2014. Intrinsically desialyated CD103<sup>+</sup> CD8 T cells mediate beneficial anti-glioma immune responses. *Cancer Immunology and Immunotherapy*. 63(9):911-24.
6. **Cordner** R, Black KL, Wheeler CW 2013. The Exploitation of Adaptive Evolution in Glioma Treatment. *CNS Oncology* 2(2), 171-179.

## Presentations

1. Improving Educational Practices in Medical Laboratory Science Courses. BYU MMBio Seminar Series, March 2020.
2. Using and Creating Open Educational Resources for MLS/MLT Programs. Medical Laboratory Educators Network Symposium, May 2019.
3. Molecular Diagnostics in the BYU MLS Program. Medical Laboratory Educators Network Symposium, November 2018.
4. Clinical Internship Site Location and Recruitment in the BYU MLS Program. Medical Laboratory Educators Network Symposium, November 2018.
5. White Blood Cell Morphology and Clinical Laboratory Centralization. BYU MMBio Seminar Series, October 2018.

## Certifications

Certified Medical Laboratory Scientist by the American Society for Clinical Pathology 2011

## Society Memberships

American Society for Clinical Laboratory Science 2017