CAMERON MARTINO

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EXPERIENCE

PhD student — UCSD Bioinformatics and Systems Biology — (June 2018 - present)
• Integrated state of the art recommendation systems and compositional statistics to perform dimensional reduction robust to high levels of sparsity in omics datasets.

Microbial Community Data Scientist — Ascus Biosciences — (2016 - June 2018)
• Leveraged functionally descriptive approaches in combination with in-vitro cultivation to target microbes from complex ecosystems most efficacious for desired mechanisms of commercial, health, environmental and societal value.
• Managed a team of computer scientists in developing automated and user facing analysis tools.
• Participated and led customer facing product presentations globally.

Bioinformatics Consultant — General Automation Lab Technologies — (2016 - June 2017)
• Led-development on a high-dimensional demultiplexing tool kit for illumina based sequencing
• Advanced the molecular and computational development of automation for targeted isolation of microbes from a consortium

Undergraduate Researcher — UC San Diego, Zengler lab — (2014 - June 2017)
• Developed a novel prebiotic for a complex interdisciplinary human health study.
• Led and assisted in several NGS projects.
• Managed lab microbial cultivation (aerobic and anaerobic).

SELECTED PUBLICATIONS

1. **Cameron Martino**, Morton, J. T., Marotz, C. A., Thompson, L. R., Tripathi, A., Knight, R., and Zengler, K. (2019). A Novel Sparse Compositional Technique Reveals Microbial Perturbations. *MSystems*, 4(1):e00016–19

2. Jin Song, S., Woodhams, D. C., **Cameron Martino**, Allaband, C., Mu, A., Javorschi-Miller-Montgomery, S., Suchodolski, J. S., and Knight, R. (2019). Engineering the microbiome for animal health and conservation. *Experimental Biology and Medicine*, page 1535370219830075

3. Clemmons, B., **Cameron Martino**, Embree, M., Melchior, E., Voy, B., Campagna, S., and Myer, P. (2018). Biochemical and Microbial Biomarkers of Feed Efficiency in Black Angus Steers. *Journal of Animal Science*, 96:237–237

4. Bluemel, S., Wang, L., **Cameron Martino**, Lee, S., Wang, Y., Williams, B., Horvath, A., Stadlbauer, V., Zengler, K., and Schnabl, B. (2018). The Role of Intestinal C-type Regenerating Islet Derived-3 Lectins for Nonalcoholic Steatohepatitis. *Hepatology communications*, 2(4):393–406

SELECTED MANUSCRIPTS UNDER REVIEW

1. Livia S. Zaramela*, **Cameron Martino***, F. A.-S. F., Rees, S. D., Diaz, S. L., Chuzel, L., Ganatra, M. B., Taron, C. H., Zuiga, C., Huang, J., Siegel, D., Chang, G., Varki, A., and Zengler, K. (2019). Red meat consumption unravels bacterial enzymes with uncommon substrate preference. *Nature Microbiology*

SELECTED PATENTS

1. Embree, M., Gogul, G., **Cameron Martino**, and Pitt, N. (2018). Microbial compositions and methods of use for improving fowl production

2. Embree, M., **Cameron Martino**, Pitt, N., Embree, J., and Dodge, C. (2018). Methods for supporting grain intensive and or energy intensive diets in ruminants by administration of a synthetic bioensemble of microbes or purified strains therefor

3. Embree, M., Gaffney, J., and **Cameron Martino** (2018). Methods, apparatuses, and systems for analyzing complete microorganism strains in complex heterogeneous communities, determining functional relationships and interactions thereof, and identifying and synthesizing bioreactive modificators based thereon

EDUCATION

Undergraduate	University of California, San Diego, CA
2014 - 2017	B.S. Bioengineering (Biosystems)
Undergraduate	West Valley Community College
2012 - 2014	A.S. Applied Physics

SELECTED CONFERENCE PRESENTATIONS

SACMDA —2019— Simons Foundation - NYC
Animal Microbiome Congress —2018— Kansas City
ASM Microbe —2016— Boston

SKILLS

Highly skilled in the following wet laboratory techniques

- Illumina Sequencing Platforms
- 16S rRNA Gene Amplicon Libraries
- Metatranscriptomics
- Metagenomics
- Anaerobic and Aerobic Cultivation
- Assay Development
- Microbial Isolation to Axenicity
- Protein Purification and Functional Testing
- Ribosome Profiling

Highly skilled in the following languages and computational platforms

- Python
- C/C++
- Java
- Javascript
- Matlab
- R
- Unix
- LaTeX
- git

OPEN SOURCE CONTRIBUTIONS

- DEICODE (Lead Developer)
- BacDivePy (Lead Developer)
- gemelli (Lead Developer)
- Qiime2 (Contributor)

REFERENCES

- Kartsen Zengler — Asst. Professor Dept. of Pediatics, UCSD — kzengler@ucsd.edu
- Mike Seeley — CEO Ascus Biosciences — mike@ascusbiosciences.com

FELLOWSHIPS AWARDED

- **Ascus Biosciences Fellowship**, 2018-2019
- **Fronties of Innovation Scholars Program**, 2016-2017
- **Fronties of Innovation Scholars Program**, 2015-2016