

## Robert W. Read, M.S.

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### Profile and Career Goal

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Hardworking and reliable college graduate from the University of Nevada, Reno with a Master of Science degree in Biochemistry. Seven years work experience in an academic research environment. Knowledge of physical and natural sciences including key technical molecular biology laboratory research skills. Advanced oral and written communication experience necessary for manuscript publication, proposal development, and reporting.

### Education

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August 2011 – May 2013 University of Nevada, Reno  
• *Master of Science in Biochemistry*

August 2005 – May 2010 University of Nevada, Reno  
• *Bachelor of Science in Biochemistry & Molecular Biology with Distinction*

### Professional Experience

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- January 2014 – Present
- **EMS Genomics/Desert Research Institute, Staff Research Scientist – Dr. Grzymiski**  
Analyzed large-scale data sets obtained from laboratory-manipulated microorganisms to identify novel responses and compounds of interest. Analyzed cyanobacterial transcriptome alterations under nutrient-limited conditions.
- May 2013 – January 2014
- **Desert Research Institute, Research Assistant – Dr. Grzymiski**  
Researched the molecular transcriptomic response of an entire community of microorganisms obtained off the coast of Antarctica, in response to varying environmental conditions.
- June 2011 – May 2013
- **Desert Research Institute, Master's Student – Dr. Grzymiski**  
Studied the molecular and physiological effects of nutrient limitation on a marine unicellular microalgae that plays a major role in carbon fixation in the Southern Ocean.
- August 2009 – May 2011
- **Desert Research Institute, Research Assistant – Dr. Murray**  
Investigated the microbial origin of a natural product called Palmerolide A, a compound that has shown promise in treatment of melanoma cancer.

### Specific Skills

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Data collection/analysis:

- Filtration collection of several types of microscopic aquatic organisms
- Cultivation of marine microorganisms under specific environmental conditions
- Extraction of multiple types of nucleic acids from a variety of marine unicellular organisms
- Measurement of physiological photosynthetic performance
- Extraction and quantification of chlorophyll abundance
- Measurement of cellular size and abundance under multiple conditions
- Efficient and simultaneous management of diverse computer files
- Large-scale genomic sequencing analysis utilizing Linux-based informatic techniques
  - Expertise in R software for statistical analysis and data presentation
  - Data analysis including cDNA sequence trimming, assembly, alignment and abundance calculation
  - Knowledge of next-generation sequencing (NGS) pipeline from start to finish (e.g., raw sequence to differential expression calculation)

- Production of hidden Markov models to determine protein homology
- Python and Perl coding expertise
- Microsoft Office skills

Time management:

- Ability to meet multiple, specific goals on time and independently
- Ability to complete multiple projects concurrently

Communication:

- Conducted seminar presentation in an unrelated field
- Communicated with supervisor on important findings and produced weekly updates to supervisor
- Completed Master's thesis
- Contributed to manuscripts under development –
  - Biochemical and Gene Expression Changes in the Cosmopolitan Diatom *Chaetoceros socialis* (Bacillariophyceae) at the onset of Moderate Silicon Limitation
  - Nitrogen cost minimization is promoted by structural changes in the transcriptome of N deprived Prochlorococcus cells
  - A Time-series of Gene Expression and Community Structure Changes of Phytoplankton in Nearshore Antarctica Peninsula Waters
  - Physiological and molecular changes of the diatom *Corethron hystrix* under robust UVB irradiation

**Publications**

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Ricci, F., Lauro, F., Grzymiski, J., Read, R., Bakiu, R., Santovito, G., et al. (2017). The Anti-Oxidant Defense System of the Marine Polar Ciliate *Euplotes nobilii*: Characterization of the MsrB Gene Family. *Biology*, 6(1), 4–13. <http://doi.org/10.3390/biology6010004>

Read, R. W., Berube, P. M., Biller, S. J., Neveux, I., Cubillos-Ruiz, A., Chisholm, S. W., & Grzymiski, J. J. (2017). Nitrogen cost minimization is promoted by structural changes in the transcriptome of N-deprived *Prochlorococcus* cells. *The ISME Journal*, 11(10), 2267–2278. <http://doi.org/10.1038/ismej.2017.88>

Thesis: The Transcriptome Response of *Chaetoceros socialis* during Moderate Silica Limitation (available on request)

**References**

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Available Upon Request