

# Kevin Green

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## Education

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- Expected  
October 2018      **Master of Science in Cellular and Molecular Biology**  
San Diego State University, San Diego, CA
- May 2016      **Bachelor of Science in Biology**  
San Diego State University, San Diego, CA

## Technical experience

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- Hands on experience with Illumina MiSeq next generation sequencing (NGS) technologies
- NGS workflow, from sample collection and processing through data analysis
- Biochemical (Western Blot, ELISA, PCR) assay troubleshooting and optimization
- In vivo/in vitro sample collection and processing (cultured cells, DNA, RNA, tissues, protein) for biochemical assays
- Induced pluripotent stem cell (iPSC) culture and maintaining multiple cell lines
- CRISPR/Cas9 system gene knock-in
- Utilization of flow cytometry for isolation of rare cell populations in *Scleractinian* coral
- Statistical analysis of large data via R
- Figure creation using Adobe Illustrator
- AAUS Scientific Diving Certified
- Data and sample collection via SCUBA

## Research Experience

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- October 2018      **San Diego State University**  
- Present      *Research Assistant III*  
Laboratory of Professor Forest Rohwer, PhD, and Linda Wegly-Kelly, PhD
- Assist in daily lab activities such as ordering supplies and inventorying chemicals
  - Conduct experiments and research based on needs of lab members
  - Responsible for maintenance of SCUBA dive equipment used for research expeditions
  - Curator of lab website and database backup
- 2016 – Present      **San Diego State University**  
*Masters of Science in Cellular and Molecular Biology Candidate*  
Laboratory of Professor Forest Rohwer, PhD, and Linda Wegly-Kelly, PhD
- Attempt to elucidate novel stem cell populations in *Scleractinian* coral
  - Measure DNA methylation in *Scleractinian* coral indicative of chromatin remodeling and stem cell populations
  - Characterize microbial and viral populations associated with coral reefs off the coast of Sri Lanka
- 2015 – 2016      **The Salk Institute for Biological Studies**  
*California Institute for Regenerative Medicine (CIRM) Trainee*  
Laboratory of Genetics, Professor Inder Verma, PhD
- Assist in a proof of concept project with the goal of creating a gene therapy for individuals suffering from Hemophilia B
  - Correction of the mutation responsible for disease expression of Hemophilia B via CRISPR/Cas9 systems

- Differentiation of iPSCs into hepatocytes for implantation into patients

2014 – 2015 **Neuropore Therapies**  
*In Vivo Research Assistant*  
*In Vivo Group*

- Conduct, analyze, and report behavioral and biochemical experiments to advance drug-discovery programs targeting neurodegenerative disease-related protein aggregation

2013 – 2015 **San Diego State University**  
*Undergraduate Researcher*

Laboratory of Professor Forest Rohwer, PhD, and Linda Wegly-Kelly, PhD

- Describe the diversity and function of the microbial community across the Pacific Ocean in order to better understand coral and microbial interactions

*Undergraduate Research Assistant*

Laboratory of Professor Todd Anderson, PhD

- Assist graduate students in data collection off the coast of Southern California to determine the efficacy of marine protected areas for rocky reef fishes
- Study the habitat attributes and the distribution, abundance, and size structure of rocky reef fishes at a large spatial scale

## Publications

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1. d'Auriac, I.G., Quinn, R.A., Maughan, H., Nothias, L.-F., Little, M., Kapon, C.A., Cobian, A., Reyes, B.T., **Green, K.**, Quistad, S.D., et al. (2018). Before platelets: the production of platelet-activating factor during growth and stress in a basal marine organism. *Proc R Soc B* 285, 20181307.
2. Ramaswamy, S., Tonnu, N., Menon, T., Lewis, B. M., **Green, K. T.**, Wampler, D., ... Verma, I. M. (2018). Autologous and Heterologous Cell Therapy for Hemophilia B toward Functional Restoration of Factor IX. *Cell Reports*, 23(5), 1565–1580. <https://doi.org/10.1016/j.celrep.2018.03.121>
3. Knowles, B., C. B. Silveira, B. A. Bailey, K. Barott, V. A. Cantu, A. G. Cobián-Güemes, F. H. Coutinho, E. A. Dinsdale, B. Felts, K. A. Furby, E. E. George, **K. T. Green**, G. B. Gregoracci, A. F. Haas. et al. “Lytic to Temperate Switching of Viral Communities.” *Nature* 531, no. 7595 (March 16, 2016): 466–70. doi:10.1038/nature17193.
4. Silva, G. G. Z., **Green, K. T.**, Dutilh, B. E., & Edwards, R. A. (2015). SUPER-FOCUS: A tool for agile functional analysis of shotgun metagenomic data. *Bioinformatics (Oxford, England)*, btv584. doi:10.1093/bioinformatics/btv584

## Awards

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2015 California Institute for Regenerative Medicine Bridges to Stem Cell Research Award

## Poster Presentations

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- Measuring epigenetic signatures in diverse cell populations to identify possible stem cells in *Scleractinian* coral. Student Research Symposium – San Diego State University. San Diego, CA. March 2018
- Creating Patient-Specific Stem Cell Therapies for Hemophilia B via CRISPR/Cas9 Gene Correction. International Society for Stem Cell Research Annual Meeting – San Francisco, CA. June 2016 & SRS - San Diego State University. San Diego, CA, March 2016

- Determining the efficacy of novel compounds aimed at ameliorating Parkinson's disease via alpha-synuclein stabilization. Student Research Symposium (SRS) – San Diego State University. San Diego, CA. March 2015

### **Teaching experience**

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2016 – Present **San Diego State University: Department of Biology**

*Teaching Assistant: Biochemistry*

- Teach and mentor students of many ages from a variety of backgrounds on biochemistry and scientific writing.
- Hands on teaching and lecturing to laboratory section of Biochemistry class.
- Demonstrate and teach a variety of laboratory techniques.

2007 – 2014 **City of San Diego**

*Pool Guard II*

- Teach swim lessons for students ranging in age from 3 years to adults.
- Teach the basics of floating all the way to perfecting swimming strokes.
- Coached the community water polo team, responsible for game schedule and athlete mentoring.
- Responsible for beginning daily pool operations and ensuring patron safety.

### **Workshop Training**

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August 2015 **The Scripps Research Institute Stem Cell Biology Techniques Course**

- Learned the principals and techniques pertaining to the creation, maintenance, and differentiation of stem cells

June 2015 **San Diego State University Bioinformatics Workshop**

- Discussed large sequencing data manipulation and analysis using Linux and Python languages

### **Affiliations**

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2015 – 2016 **California Institute for Regenerative Medicine (CIRM), Bridges to Stem Cell Research Trainee**

- Conduct novel research in the field of stem cell biology under the supervision of mentors at host sites to gain specialized training and skills applicable to stem cell biology.

2013 – 2016 **San Diego State University Diving Control Board, Undergraduate Representative**

- The diving safety board is responsible for overseeing all diving operations occurring under the jurisdiction of San Diego State University.

### **Field Expeditions**

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August 2017 **National Oceanic and Atmosphere Administration (NOAA) Reef Assessment Monitoring Cruise, Southern and Central Pacific Ocean**

- Monitor remote coral reef health in the Southern and Central Pacific Ocean.
- Collection of various samples and specimens from the reef via SCUBA for genomic, bacterial metagenomic, metabolomic, and viral studies.

June 2017 **Red/Pink Snow Monitoring in Whistler, B.C. Canada**

- Determine the shifts in the microbial and viral communities in snow containing the algae *Chlamydomonas nivalis* causing increased albedo and faster snow melt.

- January 2017

  - Collect up to 50 L of snow for microbial and viral counts using a number of filtering and microscopy techniques.

**Sri Lanka Coral Reef Monitoring**

  - Monitor coral reefs around the country of Sri Lanka taking samples to quantify and characterize the microbial and viral communities present.
  - Reef imaging and water nutrient sampling techniques were also conducted.
- May 2013 – June 2014

**Coastal monitoring of benthic macro algae and pelagic fish in populations off the coast of Southern California**

  - Collect benthic substrate data and record macro algae species and abundances along transects in Southern California kelp forests.
  - Responsible for the identification and numeration of multiple benthic macro algae.

### **Previous Work Experience**

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- October 2018  
- Present

**Research Assistant III**  
Laboratory of Professor Forest Rohwer, PhD

  - Assist in daily lab activities such as ordering supplies and inventorying chemicals
  - Conduct experiments and research based on needs of lab members
  - Responsible for maintenance of SCUBA dive equipment used for research expeditions
  - Curator of lab website and database backup
- May 2018  
- Present

**Front Desk Employee**  
Coronado Fitness Club

  - Responsible for daily opening and closing of facility
  - Answer questions and concerns from gym patrons
- 2007 – 2014

**City of San Diego Pool Guard II**  
Ned Baumer Aquatic Center

  - Ensure patron safety during daily activities.
  - Responsible for beginning operations in the morning at the pool facility.
  - Teach swim lessons to patrons of all ages (3 years old to adults)
  - Title 22 and CPR/AED certified