

# Boaz Vilozny, PhD

Experienced scientist  
bringing excellence to  
biomedical products.

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## Boaz Vilozny

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## Summary

Recently I've led the analytical verification studies for an *in-vitro* diagnostic device and established quality criteria for critical product components. Driving these efforts took active collaboration with cross-functional teams including marketing, quality systems, and regulatory affairs. I look forward to bringing my expertise in diagnostic product development to a high-performing and multidisciplinary team.

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## Skills

**IVD Product Development:** Discovery & measurement of critical quality parameters, test method development & specification setting, design control, project management, regulatory requirements, market research.  
**Scientific Research:** Design of experiments, data analysis & statistical methods, small-molecule synthesis, materials science, bioconjugation, surface modification, chemical & enzymatic assays.  
**Analytical Techniques:** HPLC (reversed phase, ion exchange), LC-MS, NMR, UV-VIS, fluorescence, FAAS, cyclic voltammetry, single-channel nanopore amperometry.

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## Experience

### A Good Company / Principal Scientist, Assay Development and Design Transfer

Apr 2016 - present, Los Gatos, CA

- Initiated a design-transfer project to identify & measure critical quality parameters in a complex bacterial assay.
- Led efforts to set specifications and establish design transfer guidelines between assay development and operations.
- Designed and supervised key studies to measure performance and stability of key chemical and biological assay components.
- Managed a small team of scientists, planning parallel activities and coordinating efforts with engineering, manufacturing, quality, and leadership teams across multiple sites.

### Another Company / Senior Scientist, Analytical Chemistry

July 2015 - Jan 2016, Santa Cruz, CA

- Initiated an analytical chemistry program to support bioconjugation strategies; Developed HPLC & UV-VIS methods for successful isolation of key targets and ten-fold improvement in reaction yields.
- Introduced the use of standardized protocols and statistical data analysis to enable characterization of key bioconjugation processes.

### **Another Company / Senior Scientist, Product Development**

Oct. 2014 - June 2015, Mountain View, CA

- Designed and managed performance studies (sensitivity, specificity, interference) of *in-vitro* diagnostic for submission to FDA as 510(k).
- Analyzed performance data (sensitivity, precision, reproducibility, interference), communicated results & action plan to management.
- Managed project to establish quality criteria; Partnered with OEM to deliver key product component within a tight deadline.
- Identified stakeholders and conducted market research to assess opportunity and feasibility of a new consumer diagnostic test.

### **Senova Systems / Senior Scientist, Materials Chemistry**

Aug. 2013 - July 2014, Sunnyvale, CA

- Developed a working prototype using custom materials for calibration-free electrochemical sensing.
- Created valuable IP, helped secure a joint development partnership with a major life science company.
- Improved synthetic yield 10-fold for a key material, established quality control criteria, and wrote SOPs for process control.

## **Education**

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### **Baskin School of Engineering at UCSC / Postdoctoral Scientist**

2010 - 2013, Santa Cruz, CA

- Managed a research project to develop nanoscale chemical sensors, resulting in 2 published patents and 6 peer-reviewed publications.
- Wrote multiple grant proposals to NIH and NSF, awarded grant in 2013 for single-cell studies using nanopore technology.

### **Advanced Studies Laboratory / Visiting Postdoctoral Scientist**

2010 - 2013, NASA Ames, CA

- Managed research projects in nanomaterials characterization
- Mentored students in experiment design and data presentation
- Collaborated on grant proposals to NSF & DOD with NASA scientists

### **UC Santa Cruz / PhD, Organic Chemistry**

2004 - 2009, Santa Cruz, CA

- Independently designed and carried out experiments in fluorescence assays, polymer chemistry, chemical synthesis and analysis.
- Trained and mentored undergraduate research assistants.
- Collaborated with industry partner (Glumetrics) on methods for sugar-sensing fluorescent hydrogel polymers.

## **Achievements**

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### **Publishing & Patents**

- Co-author of 3 patent applications in sensors & bioelectronics
- Co-author of 17 peer-reviewed publications in top scientific journals.

### **Professional Societies**

- Peer-reviewer for *RSC Advances* (2013 – present) and *Analytical Chemistry* (2010 – 2013); Member ACS since 2005

- Conference Co-Chair & Organizer, 2013 Fall symposium of the IEEE SFBA Nanotechnology Council: Nanoengineered Biomedical Devices

#### Instruction and Outreach

- Panel Moderator, Research in Industry at the Beyond Academia Conference, March 2017, UC Berkeley, March 2017
- Invited speaker, Industry Workshop for PhD scientists. Materials Science Department, University of Nebraska, Lincoln, March 2016
- Founder and Writer, [Lab Without Benches](#) - Training academic scientists for careers in industry (Nov. 2015-present)
- Contributing writer for Curium consulting group and [The Timmerman Report](#)
- Instructor, Biomolecular Engineering, Supervised capstone projects in protein engineering, final reports and oral presentations (2012).
- Speaker, ACCESS undergraduate research program, 2006 – 2013.
- Member & Presenter, Organic Chemistry Journal Club, UC Santa Cruz 2008-2009