

## Contact

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## Top Skills

PCR  
Gel Electrophoresis  
Fluorescence Microscopy

## Honors-Awards

Wireless Innovation Project, First Place  
Internet of Everything Innovation Challenge, First Place  
Women Entrepreneurs Pitch Competition, First Place  
Columbia Venture Competition, Third Place  
Tau Beta Pi Engineering Honors Society

## Publications

Accuracy and reliability of a wireless vital signs monitor for hospitalized patients in a low-resource setting  
Developing Medical Technologies for Low-Resource Settings: Lessons From a Wireless Wearable Vital Signs Monitor—neoGuard  
Feasibility, performance and acceptability of an innovative vital signs monitor for sick newborns in Western Kenya: A mixed-methods study

## Patents

Continuous Vital Sign Monitoring And Notification Apparatus And Method

# Teresa Cauvel

Co-founder and CTO at Neopenda  
Greater Chicago Area

## Summary

I am a biomedical engineer, health tech entrepreneur, and product designer passionate about creating innovative solutions that solve unmet needs in healthcare, and have real impact on people's lives. At Neopenda, we build cutting-edge technologies that help healthcare providers deliver better care, especially in places where resources are limited. Our goal is to increase access to high quality healthcare so that patients everywhere can survive and thrive.

My career began in academic research in tissue engineering and stem cell reprogramming and led me to global health medical device development while in graduate school at Columbia University. Spending time with dedicated healthcare professionals across Uganda and Kenya cultivated a dedication to developing human-centered, impact-focused products that meet the needs of those serving the most vulnerable and underserved populations, who are currently failed by most products in the medical device space.

With our product neoGuard, and future innovations in the pipeline, we're proud to be on the frontlines of advancing healthtech innovation worldwide.

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## Experience

### Neopenda

#### Co-founder and CTO

January 2015 - Present (10 years 4 months)

Chicago, IL

- Co-founded Neopenda, a medical device company focused on creating needs-based technology solutions in emerging markets. We developed a patented, CE Marked wearable vital signs monitoring system for neonates measuring pulse rate, respiratory rate, SpO2, and temperature.
- I manages product development, with extended team including mechanical and electrical engineering, industrial design, embedded firmware, software,

and UX/UI. I lead user-centric design process and iterative human factors testing with stakeholders, quality and regulatory (ISO 13485 compliant design controls and ISO 14971 risk management), and more.

- As co-founder of Neopenda, I have been part of business accelerators and professional development programs including Relevant Health, PULSE@MassChallenge, GE-GSBI Healthymagination, Techstars Chicago, and the Miller Center for Social Entrepreneurship EIR program.
- Neopenda's neoGuard product has been recognized in the WHO Compendium of Innovative Health Technologies for Low-resource Settings, the UNITAID Oxygen Innovation Landscape, and by NEST360 Qualification.

### **Columbia University in the City of New York**

#### **Graduate Research Assistant, Nanotherapeutics and Stem Cell Engineering Laboratory**

January 2015 - November 2015 (11 months)

New York, New York

- Contributed to research projects on directed cellular reprogramming utilizing the CRISPR/Cas9 system to modify gene expression in human cells.
- Managed culture of HEK293t, hNSC, and hEPC, and characterization via immunocytochemistry and fluorescence microscopy.
- Conducted experiments involving molecular cloning of Cas9 cassettes, transfection and lentivirus production, and lentiviral transduction of target cells.

### **Dow AgroSciences**

#### **Discovery - Agronomic Traits Intern**

June 2013 - September 2013 (4 months)

Portland, OR

- Conducted a 13 week research project in plant tissue culture and transformation of proprietary Zea Mays genotypes, including assisting in the commercial plant transformation pipeline and culminating in a presentation and contribution to a technical paper.

### **Bay Area Biotechnology Consortium**

#### **Student Contractor**

September 2012 - June 2013 (10 months)

- Maintained *C. elegans* strains, assembled molecular biology lab kits for high school classrooms, and assisted with general lab work.

### **Santa Clara University**

1 year 7 months

### Peer Academic Tutor

September 2011 - March 2013 (1 year 7 months)

Santa Clara, CA

- Tutored undergraduate students in one-on-one and group settings in general and organic chemistry.

### Undergraduate Research Assistant

July 2012 - September 2012 (3 months)

Santa Clara, CA

- Worked on neurobiology research with *C. elegans* in the Biology Department at Santa Clara University.
- Developed skills maintaining and freezing worm stocks; chunking, picking, and imaging *C. elegans* nematodes.

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## Education

### Columbia University in the City of New York

Masters of Science, Biomedical Engineering · (2014 - 2016)

### Santa Clara University

Bachelor of Science, Bioengineering and Biomedical Engineering · (2010 - 2014)