

## Nicole Zeinstra

ASSOCIATE

Patents and  
Innovations  
Boulder

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## FOCUS AREAS

Patents and Innovations

## EXPERIENCE

Dr. Nicole Zeinstra is an associate at Wilson Sonsini Goodrich & Rosati, where her work focuses on patents and innovations. Her background includes cell therapy, stem cell biology, tissue engineering, molecular biology, protein engineering, and immunology.

Prior to joining the firm, Nicole earned her Ph.D. in bioengineering from the University of Washington in the labs of Professors Charles Murry and Ying Zheng. Her research focused on engineering thick vascularized patches for cardiac repair. During graduate school, she was also a venture analyst at Washington Research Foundation & WRF Capital, where she assessed scientific and market potential of life sciences innovations.

## CREDENTIALS

### Education

- J.D., UC Berkeley School of Law, 2025
- Ph.D., Bioengineering, University of Washington  
*NIH Ruth L. Kirschstein National Research Service Award Individual Predoctoral Fellowship (F31), UW Bioengineering Cardiovascular Training Grant, UW Institute for Stem Cell and Regenerative Medicine Fellow*
- B.S., Double Major in Chemical-Biological Engineering and Biology, Massachusetts Institute of Technology, 2016  
*MIT Bioengineering Research and Innovation Scholar, NCAA Postgraduate Scholar in Track and Field, CoSIDA Academic All-American in Cross Country/Track and Field*

### Admissions

- State Bar of Colorado
- U.S. Patent and Trademark Office

## INSIGHTS

### Select Publications

- Lead author with A. L. Frey, Z. Xie, L. P. Blakely, R. K. Wang, C. E. Murry, and Y. Zheng, "Stacking thick perfusable human microvascular grafts enables dense vascularity and rapid integration into infarcted rat hearts," 301 *Biomaterials* 122250, 2023
- Lead author with M.A. Redd, W. Qin, W. Wei, A. Martinson, Y. Wang, Y. Zheng, et al., "Patterned human microvascular grafts enable rapid vascularization and increase perfusion in infarcted rat hearts," 10(1) *Nature Communications* 584, 2019
- Co-author with Z. Xie, M. A. Kirby, N. M. Le, C. E. Murry, Y. Zheng, and R. K. Wang, "Quantifying microvascular structure in healthy and infarcted rat hearts using optical coherence tomography angiography," 43(8) *IEEE Transactions on Medical Imaging* 2878-2887, 2024

- Co-author with P. Tang, M.A. Kirby, N. Le, Y. Li, G.N. Lu, R.K. Wang, et al., “Polarization sensitive optical coherence tomography with single input for imaging depth-resolved collagen organizations,” 10(1) *Light: Science & Applications* 237, 2021

## **TECHNICAL FLUENCY**

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### **Biological Sciences and Biotechnology**

- Cell biology
- Cell therapy
- Immunology
- Molecular biology
- Stem cell biology

### **Therapeutics and Drug Discovery**

- CRISPR
- Gene editing

### **Diagnostics and Medical Devices**

- Medical imaging

### **Chemistry and Material Science**

- Protein engineering

### **Engineering and Technology**

- 3D bioprinting
- Microfluidics

### **Genomics and Data Analysis**

- Single-cell sequencing

### **Miscellaneous**

- Fluorescence microscopy