WILSON SONSINI

Ellie Han

ASSOCIATE

Patents and Innovations

Century City

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FOCUS AREAS

Biotech

Diagnostics, Life Science Tools, and Deep Tech

Life Sciences

Medical Devices

Patents and Innovations

EXPERIENCE

Dr. EunHee (Ellie) Han is an associate in the Century City office of Wilson Sonsini Goodrich & Rosati, where she is a member of the firm's patents and innovations group. Ellie leverages her unique interdisciplinary background in biomedical engineering to provide strategic patent counseling to clients in biotechnology, diagnostics, medtech, and therapeutics industries.

Ellie is experienced in working with clients at various stages, from start-ups and emerging companies to public companies, providing practical, tailored advice to navigate the complexities of patent portfolio development and strategy. Her experience includes IP due diligence for mergers and acquisitions, private financings, and public markets; freedom to operate, non-infringement, and invalidity analyses; and preparation and prosecution of patent filings in the U.S. and around the world.

Prior to joining the firm, Ellie was a team leader in the Biomedical Systems and Technologies Group at Physical Optics Corporation. There, she oversaw projects on wound healing and in vitro diagnostics, including lateral flow assays, point-of-care devices, and tissue-on-a-chip devices.

Ellie's doctoral dissertation in bioengineering focused on the role of proteoglycans in cartilage biomechanics and in biomaterials for orthopedic regenerative medicine. She also performed research at the Mayo Clinic on growth factor regulation of tendon cells.

CREDENTIALS

Education

- J.D., UCLA School of Law
  Managing Editor, UCLA Journal of Law and Technology
- Ph.D., Bioengineering, University of California, San Diego
  National Science Foundation Graduate Research Fellow
- B.S., Bioengineering: Biotechnology, University of California, San Diego
  University of California Regents Scholar, Tau Beta Pi Engineering Honor Society

Admissions

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

INSIGHTS

Select Publications

- Lead author with C. GE, A.C. Chen, B.L. Schumacher, and R.L. Sah, "Compaction enhances extracellular matrix content and mechanical properties of tissue engineered cartilaginous constructs," 18 *Tissue Eng: Part A* 1151-60, 2012

- Lead author with S.S. Chen, S.M. Klisch, and R.L. Sah, "Proteoglycan osmotic swelling pressure contribution to compressive properties of articular cartilage," 100(4) *Biophys J* 916-24, 2011
- Lead author with L.M. Wilensky, B.L. Schumacher, K. Masuda, and R.L. Sah, "Tissue engineering by molecular disassembly and reassembly: biomimetic aggregation to tune the retention of mechanically functional aggrecan in hydrogel," 16(6) *Tissue Eng: Part C*, 1471-9, 2010
- Lead author with W.C. Bae, N.D. Hsieh-Bonassera, et al., "Shaped, stratified, scaffold-free grafts for articular cartilage defects," 466(8) *Clin Orthop Relat Res*, 1912-20, 2008
- Co-author with T.A. Schmidt, N.S. Gasteulm, G.E. Nugent, B.L. Schumacher, and R.L. Sah, "Differential regulation of proteoglycan 4 metabolism in cartilage by IL-1α, IGF-I, and TGF- β1," 16(1) *Osteoarthritis Cartilage*, 90-7, 2008
- Co-author with T.A. Schmidt, B.L. Schumacher, T.J. Klein, M.S. Voegtline, and R.L. Sah, "Chemomechanical coupling in articular cartilage: IL-1α and TGF-β1 regulate chondrocyte synthesis and secretion of lubricin/superficial zone protein," *Physical Regulation of Skeletal Repair*, ed by R.K. Aaron and M.E. Bolander, American Academy of Orthopaedic Surgeons, Chicago, 2005

Select Speaking Engagements

- Speaker, “Incorporation of CS:KS ratio and collagen extrafibrillar water content into osmotic pressure model to study compressive properties of articular cartilage,” Orthopaedics Research Society Annual Meeting, Long Beach, California, January 2011
- Speaker, “Tissue engineering by molecular disassembly and reassembly: Biomimetic aggregation to tune the retention of mechanically-functional aggrecan,” Orthopaedics Research Society Annual Meeting, New Orleans, Louisiana, March 2010
- Speaker, “Shaped, scaffold-free cartilaginous constructs for articular cartilage defects,” California Tissue Engineering Meeting, Davis, California, September 2006

TECHNICAL FLUENCY

Biological Sciences and Biotechnology

- Biochemical assays
- Biochemistry
- Bioconjugation
- Biophysics
- Cell biology
- Cell culture products
- Cell therapy
- Cellular biology
- Molecular biology
- Stem cell biology

Therapeutics and Drug Discovery

- Drug delivery
- Pharmacodynamics
- Pharmacokinetics

Diagnostics and Medical Devices

- Biomedical devices
- Biomedical engineering
- Biosensors
- Diagnostics
- Digital pathology
- Medical devices
- Medical imaging
- Point-of-care testing (POCT)
- Wearable analyte sensors

Chemistry and Material Science

- Polymers

Engineering and Technology

- 3D bioprinting
- Biomechanics
- Materials science
- Mechanical engineering
- Microfluidics

Miscellaneous

- Fluorescence microscopy
- Ophthalmology
- Physiology