WILSON SONSINI

Lou Lieto

PARTNER

Patents and Innovations

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FOCUS AREAS

Animal Health
Biotech
Global Generics
Intellectual Property
Life Sciences
Medical Devices
Patents and Innovations
U.S. Expansion

HIGHLIGHTS

Chair of the Patents and Innovations Department

Lou has decades of experience advising biotechnology, pharmaceutical, and life science clients on all aspects of patent law and related business matters.

Represents Life Sciences Innovators

Lou works with innovators engaged in highly technical fields, including CRISPR, cell therapy, immunotherapeutics, medical devices, pharmaceuticals, stem cells, biofuels, regenerative medicine, and transgenic animals. Prior to joining the firm, Lou was a patent examiner at the USPTO.

Designed and Implemented IP Strategy for Multiple Companies with Drugs in Active Clinical Trials

Curemark, Direct Biologics, BioNTech, Marengo Therapeutics, Myeloid Therapeutics, ONL Therapeutics, Prime Medicine, Skyhawk Therapeutics, Stoke Therapeutics, and TCR2 Therapeutics.

Extensive Experience Representing Investors and Companies in Financings and M&A

- Anterra Capital, Apple Tree Partners, F-Prime Capital, Flagship Pioneering, Newpath Partners, Novo Ventures, Oxford Science Enterprises, RTW Investments, Samsara Biocapital, SR One, UPMC Enterprises, Venrock, Vida Ventures, and other venture and investment funds in IP diligence matters.
- Have supported more than 100 clients undergoing IP diligence for a venture round of investment.
- Aileron Therapeutics, Beam Therapeutics, BioNtech, Cargo Therapeutics, Graphite Bio, Neon Therapeutics, Precigen, Prime Medicine, Recursion Pharmaceuticals, Stoke Therapeutics, and TCR2 Therapeutics on IP matters related to their public offerings.
- 4D Pharma on IP matters related to their cross-border merger into a SPAC and NASDAQ listing.
- B-Mogen Biotechnologies, CellPoint, Delinia, Future Health Works, Midori, MiroBio, Neon Therapeutics, NeuroCycle Therapeutics, Totient, each leading to an acquisition by a major biotech company.

EXPERIENCE

Dr. Louis D. Lieto is the leader of the patents and innovations department at Wilson Sonsini Goodrich & Rosati and is a partner in the firm's Boston and Washington, D.C., offices. Lou advises biotechnology and pharmaceutical companies on strategic patent counseling, global patent portfolio development and management, and IP counseling for M&A and capital markets in complex life science fields.

Lou received his Ph.D. from the University of Kentucky, where he focused on characterizing the molecular and genetic basis of hereditary disease. Subsequently, Lou completed his postdoctoral fellowship in immunology at the National Institute of Allergy and Infectious Diseases (NIAID).

Prior to joining Wilson Sonsini, Lou was a patent examiner at the U.S. Patent and Trademark Office where he examined applications for inventions encompassing proteins, DNA vectors, nucleic acid vaccines, immune cell therapy, stem cell therapy, transgenic animals, and gene therapy.

CREDENTIALS

Education

- J.D., The George Washington University Law School
  With Honors
- Ph.D., Veterinary Science, University of Kentucky
  Authored dissertation titled "The Genetic Basis of Epitheliogenesis Imperfecta in Equus caballus"
- B.S., Ecology and Evolutionary Biology, University of Rochester
  Minor in Political Science

Associations and Memberships

- American Academy of Allergy, Asthma and Immunology
- American Association of Immunologists
- American Intellectual Property Law Association
- International Society for Animal Genetics

Honors

- Recognized as a "Distinguished Leader" in *Law.com's* 2024 New England Legal Awards
- Recognized in the Massachusetts Life Sciences category in the 2025-2026 editions of *Chambers USA*

Admissions

- Bar of the District of Columbia
- State Bar of Massachusetts
- State Bar of New Hampshire
- U.S. District Court for the District of New Hampshire
- U.S. Patent and Trademark Office

MATTERS

Select Matters

- ONL Therapeutics on $65 million Series D
- eGenesis on $191 million Series D
- Amber Therapeutics on $100 million Series A
- Verona Pharma on its approval of Ohtuvayre by the FDA
- Ahren, OMX Ventures, +ND Capital and Fine Structures Ventures on Constructive Bio's $58 million Series A
- Ochre Bio on License Agreement with GSK
- Stoke Therapeutics on IP matters related to $125 million upsized public offering
- Prime Medicine on IP matters related to $161 million upsized public offering
- Arena BioWorks on matters related to launch
- CARGO Therapeutics on IP matters related to $281 million initial public offering
- Chroma Medicine on $135 million Series B
- Amber Therapeutics on their acquisition of Bioinduction
- CARGO Therapeutics on $200 million Series A
- Prime Medicine on patent matters related to its $175 million initial public offering
- MiroBio on patent matters related to acquisition by Gilead Sciences
- Marengo Therapeutics in regards to strategic partnership with Ipsen
- Skyhawk Therapeutics, Inc. on collaboration agreement with Sanofi

- MiroBio on $97 million Series B
- CellPoint in its acquisition by Galapagos
- Totient in its acquisition by AbSci
- SR One related to Simcha Therapeutics' $40 million Series B
- Stoke Therapeutics on IP matters related to collaboration with Acadia Pharmaceuticals
- Chroma on $125 million Series A
- GRO Biosciences on $25 million Series A
- Dunad Therapeutics on strategic collaboration with Novartis
- Midori on patent matters related to acquisition by Royal DSM
- Graphite Bio on IP matters related to initial public offering
- Recursion Pharmaceuticals, Inc. on its $501 million initial public offering
- 4D PHarma on its merger with Longevity Acquisition Corporation
- Oxford Science Innovation on patent matters related to Vaccitech's $168 million Series B
- Oxford Science Innovation on IP matters related to Genomics PLC's $30 million funding round
- NeuroCycle Therapeutics in its acquisition by Engrail Therapeutics
- Precigen on IP matters related to its $129.4 million public offering
- TCR² Therapeutics on patent matters related to $140 million public offering
- Myeloid Therapeutics, Inc. on patent matters related to $50 million financing

INSIGHTS

Select Publications

- Co-author with V. Norviel, D. Hoffmeister, G. Ravitz, J. Ravitz, C. Andres, and R. Watkins, "Citizen Petitions are Crucial in Managing A Drug's Life Cycle," *Law360*, November 8, 2019
- Co-author, "The Serious and Immense Impact of a Medical Device Hack," *Law360*, January 12, 2017
- Co-author, Brief for *amici curiae* Amarantus Bioscience Holdings, Inc., Exo Incubator, Inc., and Michael Heltzen in support of petitioner, *Sequenom, Inc. v. Ariosa Diagnostics, Inc., et al.*, On Petition for a Writ of Certiorari to the U.S. Supreme Court, No. 15-1182
- Co-author, Brief for *amici curiae* Population Diagnostics, Inc., Avant Diagnostics, Inc., Personalis, Inc., Linda Bruzzone, and Erin Marie Mading in support of petitioner, *Sequenom, Inc. v. Ariosa Diagnostics, Inc., et al.*, On Petition for a Writ of Certiorari to the U.S. Supreme Court, No. 15-1182
- Co-author, "FDA's Proposed Rules to Address Inaccurate Orange Book Use Codes May Shorten Approval Timelines for Select 505(b)(2) and Generic Drugs," *Generic Pharma 2.0*, July 15, 2015
- Co-author with D.M. Hoffmeister, V. Norviel, T.J. Noh, M.C. Easterday, P. Girinath, and C. Andres, "Reflections on the Remarkable Rise of Orphan Drugs," *Law360*, January 28, 2015
- Co-author with C. Andres, V. Norviel, E. Kepplinger, J. Chambers, and C. McAndrew, "Strategies for Maximizing Patent Claim Scope and Patent Protection for Diagnostic Method Claims in the Wake of *Mayo v. Prometheus*," *The Life Sciences Report*, Wilson Sonsini Goodrich & Rosati, Spring 2013
- Co-author with V. Norviel, "Fast or Slow? Strategies to Speed Up the Patent Process Among Worldwide Patent Offices," *The Intellectual Property Strategist*, Vol. 17, No. 4, January 2011
- Co-author with F. Borrego, K. Maasho, D. West, and J.E. Coligan, "The Human *CD94* Gene Codes for Multiple, Expressible Transcripts including a New Partner of NKG2A/B," 7 *Genes and Immunity* 36-43, 2006
- Co-author with A.I. Marusina, D.K. Kim, F. Borrego, and J.E. Coligan, "GATA-3 is an important transcription factor for regulating human NKG2A gene expression," 19 *Federation of American Societies for Experimental Biology Journal* A17-A17 Part I Supplement S, 2005
- Co-author with F. Borrego and J.E. Coligan, "CD94 1A/1B: A Window Opens into NK Cell Development," 106 *Blood* 3338-9, 2005
- Co-author with A.I. Marusina, D.K. Kim, F. Borrego, and J.E. Coligan, "GATA-3 Is an Important Transcription Factor for Regulating Human NKG2A Gene Expression," 174 *Journal of Immunology* 2152-9, 2005
- Co-author with T.W. Swerczek and E.G. Cothran, "Developmental Defects of Enamel in American Saddlebred Foals with Epitheliogenesis Imperfecta," 24 *Journal of Equine Veterinary Science* 1-5, 2004
- Co-author with F. Borrego, C.H. You, and J.E. Coligan, "Human *CD94* Gene Expression: Dual Promoters that Differ in Responsiveness to IL-2 or IL-15 and Bind STAT5A and STAT5B," 17 *Federation of American Societies for Experimental Biology Journal* 556.8, 2004
- Co-author with A.I. Marusina, D.K. Kim, F. Borrego, and J.E. Coligan, "GATA-3 Is an Important Transcription Factor for Regulating NKG2A Gene Expression," 17 *Federation of American Societies for Experimental Biology Journal* 556.16, 2004
- Co-author with J.E. Coligan, K. Maasho, and F. Borrego, "Human CD94 gene expression: dual promoters differing in IL-2 responsiveness, alternative transcripts and post transcriptional regulation," 17 *Federation of American Societies for Experimental Biology Journal* C97-C98 Supplement S, 2003

- Co-author with F. Borrego, C. You, and J.E. Coligan, "Human CD94 Gene Expression: Dual Promoters Differing in Responsiveness to IL-2 or IL-15," 171 *Journal of Immunology* 5277-5286, 2003
- Co-author with E.G. Cothran, "The Epitheliogenesis Imperfecta Locus Maps to Equine Chromosome 8 in American Saddlebred Horses," 102 *Cytogenetics and Genome Research* 207-210, 2003
- Co-author with J. Gregan, L. Van Laer, G. Van Camp, and S.E. Kearsey, "A Yeast Model for the Study of Human *DFNA5*, a Gene Mutated in Non-syndromic Hearing Impairment," 1638 *Biochimica et Biophysica Acta* 179-186, 2003
- Co-author with F. Borrego, J. Kabat, D.K. Kim, K. Maasho, J. Peña, R. Solana, and J.E. Coligan, "Structure and Function of Major Histocompatibility Complex (MHC) Class I Specific Receptors Expressed on Human Natural Killer (NK) Cells," 38 *Molecular Immunology* 637-660, 2002
- Co-author with D.K. Kim, F. Borrego, and J.E. Coligan, "Characterization of the Human *NKG2A* Promoter, 16 *Federation of American Societies for Experimental Biology Journal* A694-A694 Part 1, 2002
- Co-author with K. Maasho, F. Borrego, and J.E. Coligan, "Defining the Regulatory Factors Required for CD94 Gene Expression," 16 *Federation of American Societies for Experimental Biology Journal* A694-A694 Part 1, 2002
- Co-author with T.W. Swerczek and E.G. Cothran, "Equine Epitheliogenesis Imperfecta in Two American Saddlebred Foals Is a Lamina Lucida Defect," 39 *Veterinary Pathology* 576-580, 2002
- Co-author with E.G. Cothran, "Characterization of Expressed Sequence Tags Generated from Skin cDNA Clones of *Equus caballus* by 5 Prime Sequencing," 12 *Animal Biotechnology* 87-97, 2001
- Co-author with N. El Hage and B. Stevenson, "Stability of Antigen-Encoding *erp* Loci in *Borrelia burgdorfei* Reisolated from Chronically Infected Immunocompetent Mice," 67 *Infection and Immunity* 3146-3150, 1999
- Co-author with E.G. Cothran and D.P. Sponenberg, "Molecular Characterization and Genetic Analysis of Black Coat Color in the Horse," 29 (supp. 1) *Animal Genetics* 57, 1998

TECHNICAL FLUENCY

Biological Sciences and Biotechnology

- Antibody
- Antigen presentation
- Biochemical assays
- Biochemistry
- Bioconjugation
- Biologics
- Cancer biology
- Cancer therapeutics
- CAR-T cells
- Cell biology
- Cell culture products
- Cell therapy
- Cellular biology
- Cellular immunology
- Epigenetics
- Genetics
- Genomics
- Glycobiology
- Host-pathogen interactions
- Immuno-oncology
- Immunobiology
- Immunology
- Metabolomics
- Microbiology
- MicroRNA (miRNA) research
- Molecular biology
- Molecular genetics
- Neurobiology
- PCR
- Proteomics
- Stem cell biology
- T and B cell biology
- T cell biology
- T cell immunology

- Virology

Therapeutics and Drug Discovery

- Antimicrobial agents
- Biosimilars
- CRISPR
- Drug conjugates
- Drug conjugates based drug discovery
- Drug delivery
- Gene editing
- Gene therapy
- Immunotherapy targets
- Neuropharmacology
- Peptide therapeutics
- Pharmacodynamics
- Pharmacogenomics
- Pharmacokinetics
- Pharmacology
- RNA interference (RNAi)
- Small molecule synthesis
- Small molecules
- Vaccines

Diagnostics and Medical Devices

- Biomedical devices
- Biomedical engineering
- Biosensors
- Diagnostics
- Medical devices
- miRNA detection
- Point-of-care testing (POCT)
- Wearable analyte sensors

Chemistry and Material Science

- Chemistry
- Green chemistry
- Organic chemistry
- Peptidomimetics
- Polymorph
- Process chemistry
- Protein engineering
- Protein folding
- Supramolecular chemistry

Genomics and Data Analysis

- Bioinformatics algorithms
- Computational biology
- Functional genomics
- Next-generation sequencing
- rDNA
- Sequencing
- shRNA
- Single-cell sequencing

Miscellaneous

- Cancer
- COVID 19
- Engineered foods
- Fluorescence microscopy
- Food science

- Formulations
- Health economics and outcomes research (HEOR)
- Human factors engineering
- Infectious diseases
- Ophthalmology