

Charles E. Lyon, DPhil

Chair, Intellectual Property



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Practice Areas

Intellectual Property Protection
Complex Intellectual Property Disputes
Life Sciences

Education

Boston College Law School
JD (2006)

MIT
Postdoctoral Associate (2000) Biophysical
Chemistry

University of Oxford
DPhil (1999) Biophysical Chemistry

University of Cambridge
BA (1996) Natural Sciences, *First Class Honors*

Admissions

Massachusetts
U.S. District Court, Massachusetts
U.S. Patent & Trademark Office

“[Charles] has a keen understanding of how to evaluate intellectual property” – IAM Patent 1000

Dr. Charles Lyon, Chair of Choate’s Intellectual Property Group, provides strategic insight to investors and life sciences companies, both VC-backed and publicly-traded, to help them maximize the value of their investments in intellectual property by condensing complex data into actionable insights. Through hundreds of due diligence and intellectual property analysis projects, Charles has helped clients to understand, evaluate, and respond to IP issues that arise in the context of business transactions or during the research and development of new products and technologies. His insights have helped clients to identify “hot” areas in the life sciences landscape which have driven their strategic investment decisions – notably in the areas of immuno-oncology, gene therapy, gene editing, and cell therapy. He also routinely provides advice and opinions regarding freedom-to-operate and intellectual property landscape issues to assist with R&D decisions and in the context of pre-litigation disputes including Hatch-Waxman and Biosimilar litigation.

Charles has served investor clients including Bain Capital, Deerfield Management, 5AM Ventures, Third Rock Ventures, Venrock, Perceptive Advisors, and Broadview Ventures and life sciences companies including Takeda, Gilead, Biogen, GEMoAB, Editas Medicine, and Akouos.

Representative Engagements

IP Due Diligence & Landscape Analysis

Due diligence on behalf of investors for more than 200 investments ranging from \$50 million to \$250 million across various technologies, including:

- Clinical stage biopharmaceutical company dedicated to the advancement and development of next generation antibodies
- Biopharma company in support of antiviral therapies
- Regenerative medicine company in support of stem-cell therapies for diabetes
- Clinical stage biopharmaceutical company developing and commercializing treatments for immuno-dermatology
- Gene therapy company developing next generation therapeutics for severe genetic diseases
- Biotechnology company developing therapies for liver, gastrointestinal and metabolic diseases

- Biotechnology company focused on small molecule therapeutics for the treatment of rare diseases
- Clinical stage biopharmaceutical company developing inhibitors for autoimmune and inflammatory diseases
- Clinical stage biopharmaceutical company developing transformative therapeutics for neurological disorders
- Biotechnology company developing gene therapy products for rare diseases
- Biotechnology company developing treatments for rare neurological genetic disorders
- Clinical stage biopharmaceutical company focused on neurological and neuropsychiatric diseases
- Clinical stage biopharmaceutical company to advance oncology pipeline
- Gene editing company focused on optimizing genome editing technology for therapeutic use
- Biopharma and medical device companies with focus on therapeutics, diagnostics and medical devices used for treating and diagnosing cardiovascular diseases
- Due diligence for major pharmaceutical company to support collaboration involving gene regulation therapies for neurological diseases.
- Due diligence for genetic medicine company focused on hearing loss.
- Due diligence for gene editing company in support of R&D strategic alliance for eye diseases.
- Due diligence and landscape analysis for investors prior to the formation of biopharma company developing gene editing technologies.
- Due diligence for major pharmaceutical company in support of acquisition target developing gene therapies in ophthalmology.
- Landscape analysis for biopharma company to support collaboration involving gene editing and immuno-oncology technologies.
- Due diligence for major pharmaceutical company in support of acquisition target developing meaningful treatments for stroke patients.
- Due diligence for gene editing company in support of collaboration to develop cell-based immunotherapies for the treatment of cancer.
- Landscape analysis and legal opinions for biopharma company in preparation for launch of several biosimilar antibodies.
- Landscape analysis for major pharmaceutical company evaluating partnerships in antibody-drug conjugate space.
- Landscape analysis to assist research and development of biopharma company's antibody products.
- Opinion work for animal health company relating to third party vaccine patents.

- Due diligence for diagnostic company's acquisition of company with diagnostic tests for various infectious agents.
- Freedom-to-operate analysis for multinational diagnostic company in context of supply agreement for point-of-care diagnostic device.
- Due diligence for pharmaceutical company's acquisition of implant technologies for the treatment of pain and opioid abuse.
- Due diligence for investment banks involved in numerous public offerings.

Intellectual Property Prosecution

- Helped build strategic patent portfolio for prognostic cancer tests. Guided portfolio through two successive acquisitions by market leaders including most recent acquisition valued at about \$580 million.
- Represented pharmaceutical client from start-up phase through acquisition. Built patent portfolio around glucose responsive insulin product for treatment of Type II diabetes. Helped position company for acquisition with potential valuation of over \$500 million.
- Prosecuted patent portfolio for series of AAV based ocular gene therapy programs that were acquired by biopharma client for \$800 million.
- Strategic patent portfolio development for immunotherapy company developing modified antibodies for use in treatment of cancer and infectious diseases.
- Strategic patent portfolio development for gene therapy company developing adenoviral based in vivo gene editing platform.

Post Grant Proceedings

- Life sciences company in *ex parte* re-examination of patent directed to CRISPR technology.
- Life sciences company in *inter partes* review proceeding challenging patent directed to chimeric antigen receptor technology.
- Chemical company in *inter partes* review proceeding challenging patent directed to polymer technology.

Publications and Presentations

- "Routes to Exclusivity in Cell-Based Therapy Development," co-author, *Pharmaceutical Executive*, August 2019

Professional and Community Involvement

- Peer reviewer for the Massachusetts Life Sciences Center Small Business Matching Grant Program
- Member, Boston Patent Law Association
- Member, Boston Bar Association

- Member, Oxford and Cambridge Society of New England

Recognition

- “Intellectual Property Trailblazer,” *The National Law Journal*
- “Boston Rising Star,” *The National Law Journal*
- “World’s Leading Patent Practitioner,” *IAM Patent 1000* (2014-2024)
- “Patent Star” by *Managing Intellectual Property* (2014-2024)
- “Litigation Star” by *Benchmark Litigation*
- *Massachusetts Super Lawyers*
- *Best Lawyers in America* (2023-2025)
- *Chambers USA* (2023-2024)
- *The Legal 500* (2022-2024)
- “Up & Coming Lawyer,” *Massachusetts Lawyers Weekly*
- *LMG Life Sciences*: “Life Sciences Star”