# **FISH**



## Matthew Knabel, Ph.D.

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### Overview

Matthew Knabel, Ph.D., provides patent prosecution services and strategic counsel to clients in all fields of life sciences, including antibodies, conjugates, pharmaceutical compositions, peptides, small-molecule drugs, gene sequencing, and genetic assays.

Clients ranging from pharmaceutical and biotechnology companies to universities and startups rely on Matt's depth of experience, turning to him for perceptive legal counsel and patent prosecution for their cutting-edge innovations. Matt manages a complex patent docket of hundreds of open cases, and he advises and interacts extensively with clients and inventors to evaluate patent portfolio strategies for drafting and prosecuting patent applications both in the U.S. and abroad.

Matt earned his Ph.D. from the Johns Hopkins University School of Medicine. His thesis focused on elucidating the mechanisms of microRNAs that are dysregulated during liver disease. In particular, Matt's work identified two key regulators of fibrosis — miR-214 and miR-29a — and demonstrated that sustained expression of miR-214 and miR-29a helps treat and prevent liver fibrosis and cirrhosis.

In addition to his prosecution work, Matt maintains an active pro bono practice. Working alongside the advocacy organization Kids in Need of Defense, he currently represents two children seeking asylum in the U.S.

Outside of work, Matt enjoys spending time with his family, especially cheering on his three daughters at their many sports competitions.

## News

January 6, 2025

Celebrating Excellence: Fish & Richardson Elevates 18 New Principals

### **Events**

October 6, 2022

Texas General Counsel Forum (TGCF) Virtual CLE Program | CRISPR Technology

# Additional insights

#### **Publications**

- Knabel, MK et al. "Systemic Delivery of scAAV8-Encoded MiR-29a Ameliorates Hepatic Fibrosis in Carbon Tetrachloride-Treated Mice," PLoS One, 10(4) (2015)
- Luo, W, Hu H, Chang R, Zhong J, Knabel, MK et al. "Pyruvate kinase M2 is a PHD3-stimulated coactivator for hypoxia-inducible factor 1," *Cell*, 145(5):732-44 (2011)
- Mark AL, Sun Z, Warren DS, Lonze BE, Knabel MK et al., "Stem cell mobilization is lifesaving in an animal model of acute liver failure," Ann Surg, 252(4):591-6 (2010)
- Lonze BE, Holzer HT, Knabel MK et al. "In vitro and ex vivo delivery of short hairpin RNAs for control of hepatitis C viral transcript expression," *Arch Surg.* 147(4):384-7 (2012)

#### Services

Patent

Patent Prosecution

Strategic Patent Counseling & Opinions

Patent Portfolio Management

#### Industries

Life Sciences

Biotech & Diagnostics

**Medical Devices** 

Pharmaceuticals

Academic Research & Medical Centers

#### Admissions

Texas (2019)

U.S. Patent and Trademark Office (2013)

### Education

J.D., George Washington University Law School (2019)

Ph.D., Human Genetics & Molecular Biology, Johns Hopkins University School of Medicine (2013)

B.A., Biology, Johns Hopkins University (2006)

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