



Andrew Baraniak, Ph.D.

Senior Patent Agent

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Andrew Baraniak, Ph.D. assists biotechnology clients with the preparation of patent applications, domestic and foreign patent prosecution, IP portfolio management and client counseling. In addition, Andrew conducts due diligence and patent and freedom-to-operate analyses.

With more than a decade of experience, Andrew previously was a patent agent at DuPont, where he managed and developed the IP portfolio for Butamax Advanced Biofuels LLC, a joint venture between DuPont and BP.

As a graduate student, Andrew worked in the Molecular Genetics and Microbiology Department performing research in the area of post-transcriptional gene regulation. Andrew studied the alternative splicing mechanism of the Fibroblast Growth Factor Receptor 2 (FGFR2) gene and the potential role that alternative splicing played in the progression of prostate cancer.

Andrew's research has been presented at international scientific research conferences and has led to publications in well-known journals including *Molecular and Cellular Biology*, *Journal of Biological Chemistry*, *Nature Biotechnology* and *RNA*.

Andrew is licensed to practice patent law exclusively before the United States Patent and Trademark Office (USPTO), and represents both foreign and domestic clients before the USPTO in the area of patent prosecution. Andrew is not licensed to practice before state and federal court.

Education

- Pennsylvania State University, Schreyer Honors College (B.S., 2000)
 - Biochemistry and Molecular Biology
- Duke University (Ph.D, 2006)
 - Molecular Genetics and Microbiology
- University of North Carolina, Chapel Hill (2008)
 - Postdoctoral Research

Services & Industries

- Intellectual Property
- Life Sciences & Biotechnology
- Patents

Admissions

- United States Patent and Trademark Office

Awards & Honors

- Postdoctoral Fellowship from UNC Lineberger Comprehensive Cancer Research Center, 2006-2008
- Department of Defense Predoctoral Breast Cancer Research Fellowship, 2002-2003
- Summer Undergraduate Research Fellowships, Penn State, 1998-1999
- Academic Excellence Scholarship of Schreyer's Honor College, Penn State, 1996-2000
- Howard Hughes Scholar, Penn State, 1996-2000

Community Involvement

- Board of Directors for Kennett YMCA, 2017-2019
- Mission Advancement Committee for Kennett YMCA, 2016-2019
- Membership Committee for Kennett YMCA, 2016
- Volunteer Youth Basketball Coach for Kennett YMCA, 2013-2016
- President of Candlewyck HOA Board, 2016-2018
- Treasurer of Candlewyck HOA Board, 2014-2016
- Duke University Graduate Student Campout Committee, 2001-2006
- Volunteer Baseball Coach for KAU Little League, 2016-2017
- Volunteer Basketball Coach for KAPRB, 2015-2016
- Durham Recreational Softball Team, 2000-2008

Success Stories

Ice Miller Helps Colossal Biosciences Secure \$200 Million in Series C Financing to “De-Extinct” the Woolly Mammoth, Thylacine, and Dodo

Ice Miller served as co-counsel in the representation of client Colossal Biosciences, a leading-edge genetic engineering company, in the announcement of its \$200 million Series C financing by TWG Global, a diversified holding company with operating businesses and investments in technology/AI, financial services, private lending and sports and media. Colossal will leverage this latest infusion of capital to continue to advance its genetic engineering technologies while pioneering new revolutionary software, wetware and hardware solutions, which have applications beyond de-extinction including species preservation and human healthcare. Since launching in September 2021, Colossal has raised \$435M in total funding. This latest round of capital places the company at a \$10.2 billion valuation. The Ice Miller team was led by [TaeSoo Sean Kim](#), with support from [Dann Bruno](#), [Josh Borean](#), and Simone Park. Intellectual Property counsel was provided by [Fabian Koenigbauer](#) and [Andrew Baraniak](#).

To learn more about this novel and impactful endeavor, please review Colossal's [press release](#), which goes into great detail regarding its strides in the scientific breakthroughs toward “de-extinction,” or bringing back extinct species like the woolly mammoth, thylacine and the dodo.

As noted in Colossal's release, “This funding will grow our team, support new technology development, expand our de-extinction species list, while continuing to allow us to carry forth our mission to make extinction a thing of the past.”

Ice Miller Supports Client on “Colossal” Biosciences Advancement

A recent scientific breakthrough by an Ice Miller client has garnered headlines and captured the public's imagination. Colossal Biosciences (Colossal), the world's first de-extinction company, based in Texas, has pushed science a giant step forward through their success in creating a global-first iPSC (induced pluripotent stem cells) from Asian elephant, the closest living cousin of the now extinct woolly mammoth. These iPSC cells can be edited to give mammoth-like traits and allow for the creation of eggs, sperm, and embryos that could then be implanted into an artificial womb to generate an animal. This iPSC advancement could also ultimately help scientists understand Asian elephant's resistance to cancer and could provide deeper insight into the biology of the pachyderm—with a goal of one day creating a species resembling the woolly mammoth.

Founded in 2021, Colossal is primarily focused on conservation efforts and de-extinction, a process of gene engineering technology that rebuilds and reintroduces the DNA of extinct animals once inhabiting the earth. Through this work, Colossal is heavily involved in environmental research and sustainability, driven toward reintroducing and reinvigorating a lost ancestry and climate into our biosphere.

Ice Miller's equally dedicated team has supported Colossal with its patent prosecution and counseling work since 2022, including filing patent applications for technologies leading to the iPSC breakthrough.

Ice Miller Partner TaeSoo Sean Kim spearheads the Life Sciences Patent Prosecution and IP Licensing team that represents Colossal, with Partner Fabian Koenigbauer and Senior Patent Agent Andrew Baraniak serving as co-leads on the efforts. The client team is further supported by Weihong Hsing, Safet Metjahic, Jacqueline Lesser, and Michael Graham.

Published In

- Baraniak, A.P., Chen, J.R. and Garcia-Blanco, M.A. (2006) Fox-2 Mediates Epithelial Cell-Specific Fibroblast Growth Factor Receptor 2 Exon Choice. *Mol Cell Biol* 26: 1209-22.
- Baraniak, A.P., Lasda, E.L., Wagner, E.J., Garcia-Blanco, M.A. (2003). A Stem Structure in Fibroblast Growth Factor Receptor 2 Transcripts Mediates Cell-Type Specific Splicing by Approximating Intronic Control Elements. *Mol Cell Biol* 23: 9327-37
- Zhou, H.L., Baraniak, A.P., Lou, H. (2007). Role for Fox-1/Fox-2 in mediating the neuronal pathway of calcitonin/calcitonin gene-related peptide alternative RNA Processing. *Mol. Cell Biol* 27:830-41.
- Wagner, E.J., Baraniak, A.P. Sessions, O.M., Mauger, D., Moskowitz, E., Garcia-Blanco, M.A. (2005). Characterization of the intronic splicing silencers flanking FGFR2 exon IIIb. *J. Biol. Chem.* 280:14017-27.
- Garcia-Blanco, MA, Baraniak, A.P., Lasda, E.L. (2004). Alternative splicing in disease and therapy. *Nat. Biotech.* 22(5):535-46.
- Wagner, E.W., Curtis, M.L., Robson, N.D., Baraniak, A.P., Eis, P.S., Garcia-Blanco, M.A. (2003) Quantification of alternatively spliced FGFR2 RNAs using the RNA invasive cleavage assay. *RNA* 9(12):1552-61.