

Dana Barberio, MS | Freelance Scientific and Medical Writer

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Professional profile

I am a seasoned professional writer and scientific researcher, with 9 years of experience, dedicated to delivering cutting-edge, high-impact scientific and medical writing and editing services to clients around the globe.

My expertise lies in conveying scientific vision and complex scientific concepts with clarity and precision in a wide variety of formats, across diverse therapeutic areas. My work is backed by 17 years of experience as a research scientist.

Career summary

July 2014 – Present **Edge Bioscience Communications, Sherborn, MA**
Principal, Freelance Scientific and Medical Writer

Contract-based scientific/medical writing, editing, research, and consulting. Lead and implement publication development for clients.

Key achievements

- Produced medical/scientific content for **75+ clients**, including biotech, pharma, CROs, diagnostics, non-profits, and medical communications agencies.
- Contributed to writing or editing **65 articles or publications**, including for high-impact journals. Produced **40+ slide decks**.
- **Writing experience:** Oncology, gastroenterology, microbiology/microbiome, neurological disorders, infectious disease, genetic diseases, genomics, proteomics, epigenomics, AI, machine learning, rare diseases, immunology, immuno-oncology, cardiology, dermatology, metabolic diseases, respiratory diseases, hematology/hemophilia, diagnostics, medical imaging, medical devices.
- **Extensive portfolio/services (see website):** Publications (manuscripts, posters, abstracts), white papers, content marketing, MSL training decks, presentations, slide decks, graphic design, posters, abstracts, continuing medical education, marketing fliers, brochures, and websites.

Nov. 2014 – Jan 2015 **Medtech Boston, Boston, MA**
Scientific Writer

Key achievements

- Contributing writer, covering medical innovation and technology in Boston.

1996- 2008 **Sanofi/Genzyme, Framingham, MA**
Staff Scientist II

Key achievements

- Directed research in Functional Genomics Department involving early-stage drug development and target identification. Involved in expression analysis and research on mechanism of action through signal transduction profiling. Oncology, genetic disease and rare disease applications. Managed multiple direct reports.
- Played key role in collaborations across multiple in-house departments to identify, validate and prioritize differentially expressed candidate genes, culminating in several publications.
- Instrumental in development of high-throughput mutation screening for use in a diagnostics lab.

1994-1996

**Integrated Genetics/Genzyme Genetics, Framingham, MA
Research Associate**

Key achievements

- Contributed to development of new assays for genetic disease screening, used for commercial diagnostic test screening.
- Developed and wrote standard operating procedures and trained technicians in a clinical lab.

1991-1994

**Collaborative Research, Waltham, MA
Research Assistant**

Key achievements

- Contributed to development of diagnostic assays which were used to screen for genetic diseases.
- Collaborated on writing two publications.

Education

- **MS Microbiology**, University of Connecticut, Storrs, CT, 1991
Master of Science Thesis: The physiological role of membrane-derived oligosaccharides in *E. coli*.
- **BS Biology/Microbiology**, North Carolina State University, Raleigh, NC, 1987

Certifications/Coursework/Membership

Statement of Accomplishment, with distinction, from Coursera:

- Drug Discovery, Development, and Commercialization, January 2015
- The Data Scientist's Toolbox, Johns Hopkins University, June 2014
- Bioinformatics Methods II, University of Toronto, April 2014
- Network Analysis in Systems Biology, Icahn School of Medicine at Mount Sinai, December 2013
- Introduction to Systems Biology, Icahn School of Medicine at Mount Sinai, July 2013
- Data Analysis, Johns Hopkins University, March 2013

Stanford Online: Writing in the Sciences, Statement of Accomplishment, November 2014

Membership: American Medical Writers Association, 2016-Present
International Society for Medical Publication Professionals, 2023

Select Publications

Co-authored or acknowledged for writing:

“Programmable Epigenomic mRNA Therapeutics for Single and Multiplexed Gene Expression Modulation in Diverse Disease”, In press, *Nature Biotechnology*, 2023

Gravdel K., “Exploring the Gut Microbiota in Patients with Pre-diabetes and Treatment Naïve Diabetes Type 2 - A Pilot Study”, *BMC Endocrine Disorders*, Aug. 2023:23;179.

Saidel ML, et al, “Non-Invasive Prenatal Testing with Rolling Circle Amplification: Real-World Clinical Experience in a Non-Molecular Laboratory”, *J Clin Lab Anal.* 2023

Wang Z., et al, “Highly Sensitive Blocker Displacement Amplification for Detection of Low-Level *JAK2*^{V617F} Variant”, *J Appl Lab Med.* 2023 Feb 10; jfac130.

Co-authored: Sellati T, Barberio D. “Mechanisms of Dysregulated Antibody Response in Lyme Disease.” *Frontiers in Cellular and Infection Microbiology.* Oct 2020;10:1-4.

Chey W, et al, “Galacto-Oligosaccharide RP-G28 Improves Multiple Clinical Outcomes in Lactose Intolerant Patients: Randomized Trial Results” – *Nutrients.* Apr 2020;12:1058.

Acknowledged for editing:

Holzer et al., “Immunological Response in Cynomolgus Macaques to Porcine α -1,3 Galactosyltransferase Knockout Viable Skin Xenotransplants, A Preclinical Study”, *Xenotransplant.*, Nov./Dec. 2020; 27(6).

Holzer et al., “Clinical Impact of Cryopreservation on Split-Thickness Skin Grafts in the Porcine Model”, *Journal of Burn Care and Research*, Feb 2020;41(2):306-316

Rawadi et al., INTERACT Meeting Request, “Keystone Gut Bacteria, *Christensenella minuta* for the Treatment of Obesity”, 2019.

Select Congress Abstracts

Produced written content:

Geert RA, et al. “Amiselimod Safety Profile for Crohn’s Disease, Stratified by Previous Treatment with Anti-TNF Agents”. Abstract for *Crohn’s and Colitis Congress*, Consulting, data evaluation and writing for Jan 2020 meeting.

Geert RA, et al. “Favorable Safety Profile for Amiselimod, A Selective SIP Receptor Modulator, in Crohn’s Disease”. Abstract for *Crohn’s and Colitis Congress*, Consulting and writing for Jan 2020 meeting.

Ritter, AJ, “Improvement of Clinical Symptoms of Lactose Intolerance with a Novel Prebiotic Galacto-Oligosaccharide, RP-G28” – *Gastroenterology/Digestive Disease Week Abstract*, May 2018.

Select White Papers

Co-Authored: Microbiome Therapeutics Innovation Group and Dana Barberio, “Workshop Report: Industry-Wide Challenges and Strategic Solutions in Microbiome Biomarker Development.” - White paper, December 2022.

Co-Authored: Microbiome Therapeutics Innovation Group and Dana Barberio, “Microbiome Biomarkers and the Road to Regulatory Approval”. White paper to support 2022 FDA workshop. Sept. 2021.

Written for Global Lyme Alliance, “Persister Bacteria and Lyme Disease – A Connection?” – White paper, April 2019

Select Slide Decks

Produced slide content:

“Concordance in MSI and MMR Testing: Colorectal Cancer”. Merck, Medical Science Liaison slide deck. Mar. 2021.

“BRCA Testing: Breast and Pancreatic Cancer”. Merck, Medical Science Liaison slide deck. Jan. 2021.

“Lenti-D: A One-time Autologous Gene Therapy to improve Patient Outcomes in Cerebral Adrenoleukodystrophy” – Presentation, Dec. 2018.

“Yondelis / Votrient Pharmaceutical Drug Comparison” – Janssen Pharmaceuticals, Presentation, Oct. 2015

Publications: Research Contribution and Co-Authored

Bagley R, Yao M, Weber W, **Barberio D**, et al. “Targeting the Chemokine Receptor CXCR4 and Ligand SDF-1/CXCL12 in Tumor Vasculature and Stroma.” *EJC Supplements* 2006; 4(12):22-22.

Morgenbesser SD, ... **Barberio D**, et al. “Characterization of *EGFL7* Expression and Function in Tumorigenesis and Angiogenesis.” *Proc Amer Assoc Cancer Res* 2005; 46: Abstract 4675.

Husson H, Manavalan P, Akmaev ... **Barberio D**, et al. “New Insights into ADPKD Molecular Pathways using Combination of SAGE and Microarray Technologies.” *Genomics* 2004; 84(3):497-510.

Jan De Beur SM, Finnegan R, Vassiliadis J, Cook B, **Barberio D**, et al. “Tumors Associated with Oncogenic Osteomalacia Express Genes Important in Bone and Mineral Metabolism.” *Journal of Bone and Mineral Research* 2002; 17(6):1102-1110.

Shuber AP, Michalowsky LA, Nass GS... **Barberio D**, et al.. “High-throughput Parallel Analysis of Hundreds of Patient Samples for More than 100 Mutations in Multiple Disease Genes.” *Human Molecular Genetics* 1997; 6(3):337-347.