

Brian Bower, Ph.D. – Two-Page Résumé

Mailing: 104-R NC Highway 54 West Bypass, Box 245, Carrboro, NC 27510 (Raleigh-Durham, NC Area)
Business: BDB@BDBLLC.US **Personal:** BrianBowerPhD@Gmail.com **Mobile:** +1 (919) 641-9065

SUMMARY:

A Ph.D.-trained molecular biologist with excellent written and verbal communication skills, including funded grant applications, peer-reviewed publications, and award-winning presentations, more than 10 years of experience in reagent and assay development and validation and a history of collaborative and independent work in large and small laboratories in academic and industry R&D environments.

TRAINING AND EDUCATION:

DURHAM TECHNICAL COMMUNITY COLLEGE:

Associates of Applied Science, (AAS), Software Development (GPA: 3.809) **2020-2021**

UNIVERSITY OF MICHIGAN-ANN ARBOR:

Postdoctoral Fellowship, Gerontology **2009-2014**

UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL:

Doctorate of Philosophy (PhD), Molecular Biology **2009-2014**

OHIO UNIVERSITY-MAIN CAMPUS:

Bachelor of Science (BSc), Biological Science (GPA: 3.421) **2001-2008**

WORK AND EMPLOYMENT:

IQVIA Laboratories

Durham, NC **Associate Principal Scientist** **11/2023-to-11/2024**

- **SUMMARY:** Performed clerical, administrative and scientific duties of an Associate Principal Scientist in the Assay Development portion of the Biosciences team (*aka the 'BioA' team*).
- Designed and deployed process improvements for BioTek/Agilent Plate Washers including reagent supply line splitters and Bag-in-Box and Cubitainer based reagent containers.
- Assisted with laboratory system validation processes (LSVP) for regulated systems including the Artel [Multichannel Verification System \(MVS\)](#) and the Hamilton [Microlab Prep](#).
- Developed and oversaw portions of a quarterly skills testing curriculum using the Artel MVS.
- Developed [Smartsheet](#) products that automated and streamlined portions of contracted method development and LSVP project management for both end-users and management.

BioAgilytix Labs, LLC

Durham, NC **Scientist III** **3/2021-to-11/2023**

- **SUMMARY:** Performed all clerical, administrative, and scientific duties of a Scientist II and III in the Gene and Cell Therapy / Molecular Team in a fast-paced contract research organization (CRO), including serving as lead scientist on contracted projects, SOP author and system owner.
- Managed a portfolio of active projects related to chimeric antigen receptor (CAR) T cell (CAR T) and natural killer (CAR NK) cell therapies, adeno-associated virus (AAV) and lentiviral/retroviral vector gene therapies, lipid nanoparticle (LNP) delivered gene editing therapies, and oncolytic virus projects.
- Served as the scientific and technical lead for assay development, qualification, validation, and sample analysis projects under regulatory regimes including GCP, GLP, and GMP, using instruments including the Bio-Rad [QX 200](#) and [QX One](#) droplet digital PCR systems, and the ThermoFisherScientific/Applied Biosystems [QuantStudio 7 Flex](#) Real-Time PCR system.
- Performed and validated nucleic acid extraction (DNA and RNA) procedures from matrices including mammalian cells and tissues, and formulated gene therapy vectors using manual kits (*e.g. Qiagen DNEasy, QIAamp*) and automated systems including the [QIAcube HT](#) and [Kingfisher Flex](#).
- Facilitated incorporation of laboratory automation into Gene and Cell Therapy team workflows to include the [Scinomix SciPrint VX2](#) and the [Hamilton Microlab Prep](#).

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Chaperone Therapeutics, Inc.

Durham, NC **Research Scientist** **3/2018-to-8/2020**

- **SUMMARY:** Contracted through BDB LLC to independently set up and operate Chaperone Therapeutics, Inc.'s laboratory in the [BioLabs North Carolina incubator](#), and conducted cell- & tissue-based fluorescent western blotting (e.g., *LI-COR*) to support small-molecule drug development.

BASF Agricultural Products Group

Morrisville, NC **Regulatory Biochemist** **1/2017-to-2/2018**

- **SUMMARY:** Contracted through Synectics, Inc. at BASF Corp. in the Plant Sciences division to perform assays to quantify transgenic protein expression to support deregulation of [Latitude™](#) canola.
- Validated and employed ProteinSimple Wes capillary electrophoresis (CE) immunoassays.

University of Michigan

Ann Arbor, MI **Postdoctoral Research Fellow** **10/2014-to-11/2016**

- **SUMMARY:** Worked in the laboratory of Dr. Richard Miller in the Career Training in the Biology of Aging program designing and conducting experiments investigating aging biology and other topics relevant to the NIH Interventions Testing Program.
- Designed and executed experiments to investigate the impact of pharmaceutical and other interventions in cultured mouse cells and harvested mouse cells via RT-qPCR and fluorescent western blotting (e.g., *LI-COR*) on aging-related biochemical pathways.
- Cloned transgene expression vectors used to establish three novel transgenic mouse lines and developed and qualified genotyping and gene expression analysis procedures for said mice.

University of North Carolina at Chapel Hill

Chapel Hill, NC **Graduate Research Assistant** **8/2009-to-9/2014**

- **SUMMARY:** Worked in the laboratory of Dr. Jack Griffith as part of the Curriculum in Genetics & Molecular Biology, developing and conducting experiments to investigate telomere biology.
- Contributed transmission electron microscopy (*TEM*) experience for a Journal of Virology publication that elucidated aspects of gene therapy vector capsid/genome interactions.
- Purified transgenic proteins via conventional and fast protein liquid chromatography (*FPLC*) using the GE ÄKTA protein purification system and UNICORN software.

Ohio University

Athens, OH **Research Technician** **4/2007-to-8/2009**

- **SUMMARY:** Worked at the Edison Biotechnology Institute in the laboratory of Dr. John Kopchick under the guidance of Dr. Edward List investigating the effects of hormonal and dietary interventions on the development of type 2 diabetes mellitus (*T2DM*) and obesity in mouse models.

QuidelOrtho Corp.

Athens, OH **Laboratory Technician** **9/2006-to-9/2007**

- **SUMMARY:** Worked in the Virology Section of the Research & Development (*R&D*) department at Diagnostic Hybrids Inc. under the management of Joe Jollick isolating, propagating, serotyping, identifying, and titrating pathogenic human viruses from patient clinical samples.

SELECTED GRANTS AND AWARDS:

\$86,556 2T32AG000114-30-to-31 Career Training in the Biology of Aging 2015-to-16

RECENT PANELS AND PRESENTATIONS:

- 1) Vyhlidal C, Pasas-Farmer S, Falese L, Coletti K, Kuhel D, **Bower B.** Panel Discussion: Common Challenges in Bioanalytical Assay Validation/Development in CGTP. *2023 American Association of Pharmaceutical Scientist National Biotechnology Conference Poster Session.* April 24, 2023.
- 2) **Bower B,** Jih G, Sam K, Catalano A, Gullick B, Hays A, Ramachandran I. (T1130-01-02) Evaluating a Merged Well Analysis Strategy for Validation of a Cellular Kinetics Assay to Quantify an Allogeneic Cell Product in Human Blood by ddPCR. *2023 American Association of Pharmaceutical Scientist National Biotechnology Conference Poster Session.* April 25, 2023.