Charles P. Hinzman

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EXECUTIVE SUMMARY:

Highly motivated, analytical and creative graduate student with a voracious appetite for research. Possess a fundamental understanding of varying analytical and biochemical techniques, cell and molecular biology. Using metabolomics to elucidate discoveries that inspire translational technologies to meaningfully improve patient outcomes. Unique educational and professional background provides for divergent thinking.

EDUCATION:

Georgetown University, Medical Center — **Washington, DC**
Ph.D. Biochemistry and Molecular Biology — Current
M.S. Biochemistry and Molecular Biology — Dec. 2016
Cumulative Graduate GPA – 3.9/4.0

University of Missouri, Columbia — **Columbia, MO**
B.A. Economics — May 2012

Stephens College — **Columbia, MO**
B.F.A. Fine Arts — May 2009
Cumulative Undergraduate GPA – 3.2/4.0

RESEARCH EXPERIENCE:

Georgetown University Medical Center, Washington, DC
Lombardi Cancer Center, Proteomics and Metabolomics Shared Resource
Ph.D. Student, Lab of Dr. Amrita Cheema
July 2017 – Current

- Proposed thesis project: Implementation of isotope-labeling metabolic flux analyses for the characterization and identification of potential biomarkers and novel therapeutic targets in pancreatic cancer
- Using a multi-disciplinary skill set, join analytical techniques (untargeted UPLC-QTOF-MS and NMR, including sample preparation, data acquisition/processing, statistical analysis and putative metabolite annotation) with cell and molecular biology techniques to interpret metabolic changes within biological systems
- First author manuscript submitted and under revision for publication. Contributed data and analysis toward a 2nd published paper, and 2-3 additional pending publications
- Select project experience:
    1. Measuring changes in metabolic flux within pancreatic cancer using [U-13C] and [1-13C] glucose
    2. Effects of acute radiation exposure to mouse hippocampus
    3. Radio protective properties of gamma-tocotrienol (GT-3) as prophylactic regimen for acute radiation syndrome (ARS)
    4. Isolation and characterization of neural-derived exosomes from stroke patients

Research Assistant, Lab of Dr. Partha Banerjee
Jan 2017 – July 2017

- Investigated the role of TOPK/PBK (a MAPK family kinase) in pancreatic and prostate cancers
- Designed, implemented and executed experiments including data production, aggregation, quantification and statistical analysis
- Performed comprehensive and extensive literature searches and reviews
- First author manuscript submitted and currently under review. Contributed data and analysis toward 2 additional potential publications
- Projects:
    1. Role of PBK in the regulation of the non-canonical NF-kB pathway
    2. PBK's role in epigenetic silencing of tumor suppressor genes
    3. Screened FDA approved drugs for restoration of a known tumor suppressor gene, RASSF1A
    4. Studied the use of TRAMP mouse model for mechanistic studies of PBK

Graduate Research Intern, Lab of Dr. Partha Banerjee
May 2016 – Dec 2016

- Investigated the role of TOPK/PBK (a MAPK family kinase) in prostate cancer
- Routinely performed cell lysis, protein isolation and denaturation, SDS-PAGE, Western blot, RNA isolation, RT-PCR, bacterial culture, transfection and plasmid purification protocols to study protein expression in cancer cell lines
- Project:
    1. Examined the role of PBK in the regulation of EZH2 (a known transcriptional repressor) and the subsequent epigenetic silencing various tumor suppressor genes by EZH2 – emphasis on tumor suppressor gene TIG1

PUBLICATIONS:

Published:

- Cheema, A.K.; Mehta, K.Y.; Fatanmi, O.O.; Wise, S.Y.; **Hinzman, C.P.**; Wolff, J.; Singh, V.K. A Metabolomic and Lipidomic Serum Signature from Nonhuman Primates Administered with a Promising Radiation Countermeasure, Gamma-Tocotrienol. *Int. J. Mol. Sci.* 2018, *19(1)*, 79; doi:10.3390/ijms19010079

In review:

- **Hinzman, C.P.**; Baulch, J.E.; Mehta, K.Y.; Gill, K.; Limoli, C.L.; Cheema, A.K. Exposure to Ionizing Radiation Causes Endoplasmic Reticulum (ER) Stress in Mouse Hippocampus. *Radiat. Res.*
- **Hinzman, C.P.**; Aljehane, L.; Brown-Clay, J.D.; Kallakury, B.; Sonahara, F.; Goel, A.; Trevino J.; Banerjee, P.P. Aberrant expression of PDZ-binding kinase/T-LAK cell-originated protein kinase stabilizes the oncoprotein c-MYC and modulates the invasive ability of human pancreatic cancer cells. *Carcinogenesis*

ABSTRACTS, POSTERS AND PRESENTATIONS:

- **Hinzman, C.**, Trevino, J., Banerjee, P. "Aberrant expression of PDZ-Binding Kinase Modulates Human Pancreatic Cancer Cell Invasion." Poster session presented at: *American Association for Cancer Research 2017 Annual Meeting* - April 3rd 2017, Washington, DC.
- **Hinzman, C.**, Banerjee, P. "Inhibition of PDZ-Binding Kinase Restores Epigenetically Silenced Tumor Suppressor Gene TIG1 in Human Prostate Cancer" Poster session presented at: *Georgetown University's Sixteenth Tri-Annual M.S. in Biochemistry and Molecular Biology Poster Presentations* - December 8th 2016, Washington, DC.

TECHNICAL SKILLS:

- UPLC-QTOF-MS
- NMR
- Western Blot
- Exosome isolation
- SDS-PAGE protein analysis
- Human tissue culture
- Bacterial cell culture
- RNA isolation
- RT-PCR/qRT-PCR
- DNA Gel analysis (agarose gel)
- Primer design
- Immunohistochemistry
- ELISA
- shRNA and siRNA knockdowns
- Plasmid DNA isolation and transfection
- Immunofluorescent microscopy
- Software: R, Python, MetaboAnalyst, Microsoft Office Suite, ImageJ, GraphPad Prism

HONORS AND AWARDS:

- Travel fellowship recipient ($500), 6th Annual UAB Workshop on Metabolomics, 2018
- Biomedical Graduate Fellowship Stipend recipient ($30,000/annum), Georgetown University, 2017-2018
- Biomedical Graduate Tuition Scholarship recipient ($55,000/annum), Georgetown University, 2017-2018
- 1 of 100 Leaders of Tomorrow, GapSummit (competitive invitation to attend prestigious international 3-day biotechnology leadership summit), 2017
- Academic Excellence, cumulative GPA 3.9-4.0, Georgetown University, 2016
- Excellence in Internship, Georgetown University, 2016
- Dean's List, Stephens College, 2008-2009
- Undergraduate Apprentice Scholarship recipient, Full Tuition ($30,000/annum), Stephens College, 2006-2009

PROFESSIONAL EXPERIENCE:

Vice President, Equity Capital Markets
Noble Financial Capital Markets, Boca Raton, FL
Aug 2012 - Dec 2015

- Analyzed, evaluated and effectively communicated investment opportunities to clients (institutional investors) in the life sciences sector; included granular discussions of financial models, company financial statements, SEC filings, FDA statements, understanding of the macro-economy and deep knowledge of covered companies
- Analyzed and discussed complex scientific research and mechanisms of action with institutional clients including clinical trial data, poster presentations, peer-reviewed journal articles and KOL presentations
- Managed a team of 2 associates
- Coordinated deal and non-deal roadshows, conferences, KOL conference calls and other corporate access events
- Select capital raises:
    - $100mm for Cynapsus Therapeutics, a specialty pharmaceutical company with a re-formulation candidate for use in the treatment of Parkinson's disease; sourced lead investor, multiple rounds
    - $20mm Private Placement for a biopharmaceutical company focused on Advanced Lipid Technology; private company, sole manager, sourced lead investor

Founder, Inventor
CPH Management Group, LLC, Boynton Beach, FL

- Holding company for patented cookware invention (U.S. Patent 8,950,621); formed legal entity, managed design, engineering and patent litigation processes, completed market analysis, developed prototype, created pitch book, marketed to potential partners

MEMBERSHIPS, INTERESTS & ACTIVITIES:

- Member, New York Academy of Sciences
- Associate Member, American Association for Cancer Research (AACR)
- Student Member, American Society of Clinical Oncology (ASCO)
- Class Vice President, Georgetown University Master of Science in Biochemistry and Molecular Biology, 2016-2017
- Regularly follow weekly publication of New England Journal of Medicine, Cell, The Lancet and Nature
- Author, discussing biomedical research developments on my personal website www.LifeSciInvest.com
- Scuba diving, golfing, consumer electronics, robotics and building computers

REFERENCES:

Dr. Amrita Cheema
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Department of Oncology
Department of Biochemistry and Molecular & Cellular Biology
Director, Proteomics and Metabolomics Shared Resource
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Georgetown University School of Medicine
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Associate Professor
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Dr. Cynthia Simbulan-Rosenthal
Associate Professor
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