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UNC Eshelman School of Pharmacy  
Chemical Biology and Medicinal Chemistry (CBMC)  
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## Professional Experience

2016- Associate Professor, UNC Eshelman School of Pharmacy, University of North Carolina at Chapel Hill; UNC Lineberger Comprehensive Cancer Center; Principal Investigator, Structural Genomics Consortium; Member of the UNC Graduate Faculty; BBSP-Affiliated Faculty

2015-2016 Head of Chemistry, Meryx Inc.

2010-2015 Director, Chemical Biology, GlaxoSmithKline

2008-2009 Director, Exploratory Chemistry, GlaxoSmithKline

2007-2008 Director, Metabolic Lead Discovery Team, GlaxoSmithKline

2005-2007 Director, Kinase Chemistry Team, GlaxoSmithKline

1990-2004 Various roles in Drug Discovery organization, Glaxo, GlaxoWellcome, and GlaxoSmithKline

## Education

Ph.D. Organic Synthesis and Enzymology  
Advisor: Paul A. Bartlett  
University of California, Berkeley (1990)

B.S. (*cum laude*) Chemistry  
Yale University (1985)

## Honors and Awards

GlaxoWellcome Research Excellence Award (2000)  
GlaxoSmithKline Bronze Award (2007)  
GlaxoSmithKline Silver Award (2010)  
Chordoma Foundation Uncommon Collaboration Award (2016)  
UNC Junior Faculty Development Award (2017)  
UNC Lineberger Innovation Award (2022)

## Publications and Products of Scholarship

### Peer reviewed papers

“Target2035 – update on the quest for a probe for every protein” Müller, Susanne; Al Chawaf, Arij; Al-Lazikani, Bissan; Antolin, Albert; Baell, Jonathan B.; Beck, Hartmut; Beedie, Shaunna; Betz, Ulrich A.K.; Bezerra, Gustavo Arruda; Brennan, Paul E.; Brown, David; Brown, Peter J.; Bullock, Alex N.; Carter, Adrian J.; Chaikuad, Apirat; Chaineau, Mathilde; Ciulli, Alessio; Collins, Ian; Dreher, Jan; Drewry, David H.; Edfeldt, Kristina; Edwards, Aled M.; Egner, Ursula; Frye, Stephen V.; Fuchs, Stephen M.; Hall, Matthew D.; Hartung, Ingo V.; Hillisch, Alexander; Hitchcock, Stephen H.; Homan, Evert; Kannan, Natarajan; Kiefer, James R.; Knapp, Stefan; Kostic, Milka; Kubicek, Stefan; Leach, Andrew R.; Lindemann, Sven; Marsden, Brian D.; Matsui, Hisanori; Meier, Jordan L.; Merk, Daniel; Michel, Maurice; Morgan, Maxwell, R.; Mueller-Fahrnow, Anke; Owen, Dafydd R.; Perry, Benjamin G.; Rosenberg, Saul H.; Saikatendu, Kumar Singh; Schapira, Matt; Scholten, Cora; Sharma, Sujata; Simeonov, Anton; Sundström, Michael; Superti-Furga, Giulio; Todd, Matthew H.; Tredup, Claudia; Vedadi, Masoud; von Delft, Frank; Willson, Timothy M.; Winter, Georg E.; Workman, Paul; Arrowsmith, Cheryl H.; *RSC Medicinal Chemistry* **2022**, 13, 13-21.

“NUAK family kinase 2 is a novel therapeutic target for prostate cancer” Fu, Weiwu; Zhao, Megan T.; Driver, Lucy M.; Schirmer, Amelia U.; Yin Qi; You, Sungyong; Freedland, Stephen J.; DiGiovanni, John; Drewry, David H.; Macias, Everardo; *Molecular Carcinogenesis*, **2021**, doi: 10.1002/mc.23374.

“Host-directed therapy, an untapped opportunity for antimalarial intervention” Wei, Ling; Adderley, Jack; Leroy, Didier; Drewry, David H.; Wilson, Danny W.; Kaushansky, Alexis; Doerig, Christian; *Cell Reports Medicine* **2021**, 2(10):100423.

“Non-canonical role of Hippo tumor suppressor serine/threonine kinase 3 STK3 in prostate cancer” Schirmer, Amelia U.; Driver, Lucy M.; Zhao, Megan T.; Wells, Carrow I.; Pickett, Julie E.; O’Byrne, Sean N.; Eduful, Benjamin J.; Yang, Xuan; Howard, Lauren; You, Sungyong; Devi, Gayathri R.; DiGiovanni, John; Freedland, Stephen J.; Chi, Jen-Tsan; Drewry, David H. (co-corresponding); Macias, Everardo; *Molecular Therapy* **2021**, 30 (1), 485-500.

“Hinge Binder Scaffold Hopping Identifies Potent Calcium/Calmodulin-Dependent Protein Kinase Kinase 2 (CAMKK2) Inhibitor Chemotypes” Eduful, Benjamin J.; O’Byrne, Sean N.; Temme, Louisa; Asquith, Christopher R. M.; Liang, Yi; Picado, Alfredo; Pilotte, Joseph R.; Hossain, Mohammad Anwar; Wells, Carrow I.; Zuercher, William J., Catta-Preta, Carolina M. C.; Ramos, Priscila Zonzini; de S. Santiago, André; Couñago, Rafael M.; Langendorf, Christopher G.; Nay, Kévin; Oakhill, Jonathan S.; Pulliam, Thomas L.; Lin, Chenchu; Awad, Dominik; Willson, Timothy M.; Frigo, Daniel E.; Scott, John W.; and Drewry, David H. *Journal of Medicinal Chemistry* **2021**, 64 (15), 10849-10877.

“NEK5 activity regulates the mesenchymal and migratory phenotype in breast cancer cells” Matossian, Margarite D.; Elliott, Steven; Van Hoang, T.; Burks, Hope E.; Wright, Maryl K.; Alzoubi, Madlin S.; Yan, Thomas; Chang, Tiffany; Wathieu, Henri; Windsor, Gabrielle O.; Hartono, Alifiani Bo; Lee, Sean; Zuercher, William J.; Drewry, David H.; Wells, Carrow; Kapadia, Nirav; Buechlein, Aaron; Fang, Fang; Nephew, Kenneth P.; Collins-Burow, Bridgette M.; Burow, Matthew E.; *Breast Cancer Research and Treatment* **2021**, 189(1), 49-61.

“Identification of Pyrimidine-Based Lead Compounds for Understudied Kinases Implicated in Driving Neurodegeneration” Drewry, D. H.; Annor-Gyamfi, Joel K.; Wells, Carrow I.; Pickett, Julie E.; Dederer, Verena; Preuss, Franziska; Mathea, Sebastian; Axtman, Alison D.; *Journal of Medicinal Chemistry* **2021**, ahead of print.

“Design and Development of a Chemical Probe for Pseudokinase Ca<sup>2+</sup>/calmodulin-Dependent Ser/Thr Kinase” Russ, Nadine; Schroeder, Martin; Berger, Benedict-Tilman; Mandel, Sebastian; Aydogan, Yagmur; Mauer, Sandy; Pohl, Christian; Drewry, David H.; Chaikuad, Apirat; Mueller, Susanne; Knapp, Stefan; *Journal of Medicinal Chemistry* **2021**, 64(19), 14358-14376.

“Targeting Never-In-Mitosis-A Related Kinase 5 in Cancer: A Review” Matossian, Margarite D.; Wells, Carrow I.; Zuercher, William J.; Collins-Burow, Bridgette M.; Drewry, David H. (co-corresponding); Burow, Matthew E., *Current Medicinal Chemistry* **2021**, 28(30), 6096-6109.

“Synthesis and Evaluation of Novel 1,2,6-Thiadiazinone Kinase Inhibitors as Potent Inhibitors of Solid Tumors” Kalogirou, Andreas S.; East, Michael P.; Laitinen, Tuomo; Torrice, Chad D.; Maffuid, Kaitlyn A.; Drewry, David H.; Koutentis, Panayiotis A.; Johnson, Gary L.; Crona, Daniel J.; Asquith, Christopher R. M., *Molecules* **2021**, 26(19), 5911.

“Development of a potent and selective chemical probe for the pleiotropic kinase CK2” Wells CI, Drewry DH (co-first author), Pickett JA, Tjaden A, Krämer A, Müller S, Gyenis L, Manyhart D, Litchfield DW, Knapp S, Axtman AD, *Cell Chem Biol* **2021**, 28(4):546-558.e10.

“Application of a small molecule inhibitor screen approach to identify CXCR4 downstream signaling pathways that promote a mesenchymal and fulvestrant-resistant phenotype in breast cancer cells” Matossian, Margarite D.; Elliott, Steven; Rhodes, Lyndsay V.; Martin, Elizabeth C.; Hoang, Van T.; Burks, Hope E.; Zuercher, William J.; Drewry, David H.; Collins-Burow, Bridgette M.; Burow, Matthew E.; *Oncology Letters* **2021**, 21(5), 380.

“Evaluation of liver kinase B1 downstream signaling expression in various breast cancers and relapse free survival after systemic chemotherapy treatment” Nguyen, Khoa; Rivera, Andrew; Alzoubi, Madlin; Wathieu, Henri; Dong, Shengli; Yousefi, Hassan; Matossian, Margarite; Alahari, Suresh; Drewry, David H; Burow, Matthew; Collins-Burow, Bridgette; *Oncotarget* **2021**, 12(11): 1110–1115.

“Crowdsourced mapping of unexplored target space of kinase inhibitors” Cichonska, Anna; Ravikumar, Balaguru; Allaway, Robert J.; Wan, Fangping; Park, Sungjoon; Isayev, Olexandr; Li, Shuya; Mason, Michael; Lamb, Andrew; Tanoli, Ziaurrehman; Jeon, Minji; Kim, Sunkyu; Popova, Mariya; Capuzzi, Stephen; Zeng, Jianyang; Dang, Kristen; Koytiger, Gregory; Kang, Jaewoo; Wells, Carrow I.; Willson, Timothy M.; Oprea, Tudor I.; Schlessinger, Avner; Drewry, David H.; Stolovitzky, Gustavo; Wennerberg, Krister; Guinney, Justin; Aittokallio, Tero; The IDG-DREAM Drug-Kinase Binding Prediction Challenge Consortium; *Nature Communications* **2021**, 12(1), 3307.

“The Kinase Chemogenomic Set (KCGS): an open science resource for kinase vulnerability identification” Wells CI, Al-Ali H, Andrews DM, Asquith CRM, Axtman AD, Chung M, Dikic I, Ebner D, Elkins JM, Ettmayer P, Fischer C, Frederiksen M, Gray NS, Hatch S, Knapp S, Lee S, Lücking U, Michaelides M, Milles CE, Müller S, Owen D, Picado A, Ramadan K, Saikatendu KS, Schröder M, Stolz A, Tellechea M, Treiber DK, Turunen BJ, Vilar S, Wang J, Zuercher WJ, Willson TM, Drewry DH, *Int J Mol Sci* **2021**, 22 (2), doi: 10.3390/ijms22020566; PMID: 33429995.

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Sinha P, de Silva CS, Zutshi R, Liu S, Kannan N, Knapp S, Drewry DH, Willson TM, *J Med Chem* **2020**, 63 (23) 14626; doi: 10.1021/acs.jmedchem.0c01174; PMID: 33215924.

“Crystal Structure and Inhibitor Identifications Reveal Targeting Opportunity for the Atypical MAPK Kinase ERK3” Schröder M, Filippakopoulos P, Schwalm MP, Ferrer CA, Drewry DH, Knapp S, Chaikuad A, *Int J Mol Sci* **2020**, 21 (21); doi: 10.3390/ijms21217953; PMID: 33114754.

“PKIS deep dive yields a chemical starting point for dark kinases and a cell active BRSK2 inhibitor” Tamir TY, Drewry DH, Wells C, Major MB, Axtman AD, *Scientific Reports* **2020**, 10 (1); doi: 10.1038/s41598-020-72869-9; PMID: 32985588.

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“CDK12 inhibition reduces abnormalities in cells from patients with myotonic dystrophy and in a mouse model” Ketley A, Wojciechowska M, Ghidelli-Disse S, Bamborough P, Ghosh TK, Moato ML, Sedehizadeh S, Malik NA, Tang Z, Powalowska P, Tanner M, Billeter-Clark R, Trueman RC, Geiszler PC, Agostini A, Othman O, Bösche M, Bantscheff M, Rüdiger M, Mossakowska DE, Drewry DH, Zuercher WJ, Thornton CA, Drewes G, Uings I, Hayes CJ, Brook JD, *Science Translational Medicine*, **2020**, 12, (541) eaaz2415.

“Synergistic drug combinations and machine learning for drug repurposing in chordoma” Anderson E, Havener TM, Zorn KM, Foil DH, Lane TR, Capuzzi SJ, Morris D, Hickey AJ, Drewry DH, Ekins S, *Scientific Reports*, **2020**, 10 (1) 12982.

“Defining the Neural kinome: Strategies and opportunities for small molecule drug discovery to target neurodegenerative diseases” Krahn, AI, Wells, C, Drewry DH, Beitel, LK, Durcan, TM, Axtman, AD. *ACS Chemical Neuroscience*, **2020**, 11, (13) 1871.

“Quantifying CDK inhibitor selectivity in live cells” Wells, CI, Vasta JD, Corona CR, Wilkinson J, Zimprich CA, Ingold MR, Pickett JE, Drewry DH, Pugh KM, Huber KVM, Cong M, Meisenheimer P, Willson TM, Robers MB, *Nature Communications* **2020**, 11, (1), 2743.

“HighVia – A flexible live-cell high-content screening pipeline to assess cellular toxicity” Howarth A, Schroder M, Montenegro RC, Drewry DH, Sailem H, Miller V, Müller S, Ebner DV, *SLAS Discovery*, **2020**, 25, (7) 801.

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“SGC-AAK-1: a chemical probe targeting AAK1 and BMP2K” Wells C, Couñago RM, Limas JC, Almeida TL, Cook JG, Drewry DH, Elkins JM, Gileadi O, Kapadia NR, Lorente-Macias A, Pickett JE, Riemen A, Ruela-de-Sousa RR, Willson TM, Zhan C, Zuercher WJ, Zutshi R, Axtman AD, *ACS Medicinal Chemistry Letters* **2020**, 11, (3) 340.

“In depth analysis of cross screening data to identify CAMKK2 inhibitory scaffolds” O’Byrne, SO, Scott JW, Pilotte JR, Santiago ADS, Langendorf CG, Oakhill JS, Eduful BJ, Couñago, Wells CI, Zuercher WJ, Willson TM, Drewry DH, *Molecules* **2020**, 25, (2) pii:E325

“CAMKK2 in myeloid cells is a key regulator of the immune-suppressive microenvironment in breast cancer” Racioppi L, Nelson ER, Huang W, Mukherjee D, Lawrence SA, Lento W, Masci AM, Jiao Y, Park S, York B, Liu Y, Baek AE, Drewry DH, Zuercher WJ, Bertani FR, Businaro L, Geradts J, Hall A, Means AR, Chao N, Chang CY, McDonnell DP, *Nature Communications* **2019**, 10, (1) 2450.

“Binding and structural analysis of potent inhibitors of the human Ca(2+)/calmodulin dependent protein kinases kinase 2 (CAMKK2) identified from a collection of commercially available kinase inhibitors” Profeta GS, dos Reis CV, Santiago A, Godoi PHC, Fala AM, Wells CI, Sartori R, Salmazo APT, Ramos PZ, Massirer KB, Elkins JM, Drewry DH, Gileadi O, Couñago RM, *Scientific Reports* **2019** 9, (1) 16452.

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“E2F1 proteolysis via SCF-cyclin F underlies synthetic lethality between cyclin F loss and Chk1 inhibition” Burdova K, Yang H, Faedda R, Hume S, Vhauhan J, Ebner D, Kessler BM, Vendrell I, Drewry DH, Wells CI, Hatch SB, Dianov GL, Buffa FM, D’Angiolella V, *EMBO Journal* **2019** 38, (20), e101443.

“Design of a cyclin G associated kinase (GAK) / epidermal growth factor receptor (EGFR) inhibitor set to interrogate the relationship of EGFR and GAK in chordoma” Asquith CRM, Naegeli KM, East MP, Latinen T, Havener TM, Wells CI, Johnson GL, Drewry DH, Zuercher WJ, Morris DC, *Journal of Medicinal Chemistry* **2019**, 62 (9) 4772-4778.

“SGC-GAK-1: A chemical probe for cyclin G associated kinase (GAK)” Asquith CRM, Berger BT, Wan J, Bennett JM, Capuzzi SJ, Crona DJ, Drewry DH, East MP, Elkins JM, Fedorov O, Godoi PH, Hunter DM, Knapp S, Müller S, Torrice CD, Wells CI, Earp HS, Willson TM, Zuercher WJ, *Journal of Medicinal Chemistry* **2019**, 62 (5) 2830-2836.

“CDK16: The pick of the understudied PCTAIRE kinases” Axtman A, Drewry DH, Wells, CI *Nature Reviews Drug Discovery*, **2019**, 18 (7) 489.

“A perspective on extreme open science: Companies sharing compounds without restriction” Drewry DH, Wells CI, Zuercher WJ, Willson TM, *SLAS Discovery*, **2019**, 24 (5) 505-514.

“WNT activates the AAK1 kinase to promote clathrin-mediated endocytosis of LRP6 and establish a negative feedback loop” Agajanian MJ, Walker MP, Axtman AD, Ruela-de-Sousa RR, Serafin DS, Rabinowitz AD, Graham DM, Ryan MB, Tamir T, Nakamichi Y, Gammons MV, Bennett JM, Couñago RM, Drewry, DH, Elkins JM, Gileadi C, Gileadi O, Godoi PH, Kapadia N, Müller S, Santiago AS, Sorrell FJ, Wells CI, Fedorov O, Willson TM, Zuercher WJ, Major MB *Cell Reports*, **2019**, 26 (1) 79-93.

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“Covalent inhibitors of EGFR family protein kinases induce degradation of human Tribbles 2 (TRIB2) pseudokinase in cancer cells” Foulkes DM, Byrne DP, Yeung W, Shrestha S, Bailey FP, Ferries S, Evers CE, Keeshan K, Wells C, Drewry DH, Zuercher WJ, Kannan N, Evers P, *Sci. Signal.* **2018**, 11 (549) pii:eaat7951.

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## Book Chapters

“Drug Discovery and Development for Schistosomiasis” Caffrey CR, El-Sakkary N, Mader P, Krieg R, Becker K, Schlitzer M, Drewry DH, Vennerstrom JL, Grevelding CG, Chapter 8 from Neglected Tropical Diseases: Drug Discovery and Development in the “Methods and Principles in Medicinal Chemistry” series, published by Wiley-VCH Verlag GmbH & Co KGaA, 2019, ISBN: 9783527343041

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“Drugging the Kinome” Axtman, A.D., Couñago, R., Drewry, David H., Robers, M.B., Wells, C.I.; Chapter 10 from Kinase Drug Discovery: Modern Approaches, published by Royal Society of Chemistry, 2019, ISBN: 978-1-78801-083-2.

“Kinase Inhibitors among Hits from Malaria Cellular Screens” J.R. Brown, David H. Drewry, F. J. Gamo, J. F. Garcia-Bustos, Chapter 13 in Protein Phosphorylation in Parasites: Novel Targets for Antiparasitic Intervention, published by Wiley-Blackwell, January 2014, ISBN: 978-3-527-33235-9.

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“Strategies for Discovering Kinase Drugs”, Adams, Jerry L.; Bamborough, Paul; Drewry, David H.; Shewchuk, Lisa; ed. by Lackey, Karen E; from Gene Family Targeted Molecular Design, **2009**, Pub. By John Wiley & Sons, Inc.; ISBN:978-0-470-41289-3.

“Interplay among enzyme mechanism, protein structure, and the design of serine proteases inhibitors”, P. A. Bartlett, N. S. Sampson, S. H. Reich, D. H. Drewry, L. A. Lamden, in Use of X-Ray Crystallography in the Design of Antiviral Agents, Ed: W.G. Laver and G. M. Air, Publisher: Academic Press, Inc., **1990**.

## Current Research Support

Developing a Structure-guided Drug Discovery Pipeline for Direct Brachyury Inhibition – Phase 2  
Chordoma Foundation  
Drewry (PI)  
12/23/2019-12/22/2021

Illuminating Function of the Understudied Druggable Kinome  
U24 DK116204  
Johnson (PI), Drewry Role: Staff Scientist  
11/01/2017-10/31/2023

SBIR: Kinase Targeted Antimalarial Agents  
R44 AI150237 (Luceome Biotechnologies, LLC)  
Zutshi (PI), Drewry Role: Consortium PI  
12/16/2019-11/30/2021

Characterization of an understudied kinase, NEK5, in acquisition of a mesenchymal and migratory cell phenotype

R03 TR003386 (Tulane)

Burow (PI); Drewry Role: Consortium PI

09/08/2020-09/07/2021

Chordoma Research Fund 2021-2022: \$50,000 pledge from UNC alumni / Chordoma patient

## **Completed Research Support**

Creation of in vivo active chemical probes for CAMKK2 to treat cancer

R01 CA218442

Drewry (PI)

08/01/2017-07/31/2021

Developing a structure-guided drug discovery pipeline for direct Brachyury inhibition (Phase 1)

The Mark Foundation for Cancer Res. /University of Oxford

Drewry (PI)

10/01/2018 – 9/30/2019

SBIR: Tools for Accelerating R&D for Historically Understudied Protein Kinases

R44TR001916 (Luceome Biotechnologies, LLC)

Zutshi (PI), Drewry Role: Consortium PI

02/01/2017-01/31/2020

An open-source plant chemogenomics set to identify genes controlling drought tolerance in rice University of California at Davis/The Foundation for Food and Agriculture Research (No Number)

Ronald (PI), Drewry Role: Consortium PI

10/01/2017-09/30/2020

## **Invited Lectures**

2021

Transcription Factor Drug Development

Illuminating the Druggable Genome Face-to-Face Annual Meeting

IDG experimental working group

e-IDG Symposium

2020

Chordoma Foundation International Chordoma Research Workshop

Sarcoma Webinar Series: Chordoma and Brachyury Drug Discovery

ELRIG Drug Discovery: Kinase Systems Based Research

2019

Chemical Biology and Target Validation

Fibrolamellar Cancer Foundation Research Summit 2019

Merck KGaA – Open Science

Boehringer Ingelheim – Open Science

2018

University of Wisconsin, Madison Molecular and Cellular Pharmacology Seminar Series  
Chordoma Foundation International Chordoma Research Workshop

2016

Children's Cancer Therapy Development Institute 2016 Nanocourse

2014

SGC-FAPESP-Nature conference on Chemical probe based open science

2013

Bioorganic Chemistry Gordon Research Conference  
Industrial Knowledge Forge and CR-UK/YCR Sheffield Cancer Research Center  
Biochemical Society meeting Exploring Kinomes: Pseudokinases and Beyond  
International Chordoma Research Workshop  
Drug Discovery Department seminar, Moffitt Cancer Center

2011

ASBMB Meeting, Chemical, Synthetic, and Systems Biology  
Next Generation Kinase Inhibitors

2010

Cancer Therapeutics Symposium at the Canadian Chemistry Society National Meeting

2007

Chemistry Department Seminar Series, University of North Carolina Wilmington

2005

Gordon Research Conference, Combinatorial Chemistry

2003

Paul A. Bartlett Symposium, University of California, Berkeley

2000

The Pharmaceutical Symposium, Texas A&M University

1999

Gordon Research Conference, Medicinal Chemistry  
2<sup>nd</sup> International RSC Combinatorial Chemistry Conference  
Harvard Institute of Chemistry and Cell Biology

1996

ACS National Meeting

1994

ACS National Meeting, Antiarthritic Protease Inhibitors Symposium

## **Teaching Activities**

### **Post-Doctoral Advisor**

Yi Liang

2016-2018

Nirav Kapadia (30%)	2016-2018
Carla Alamillo Ferrer	2017-2018
Sean O'Byrne	2018-2019
Ben Eduful	2018-2020
Louisa Temme	2018-2020
Alfredo Picado	2017-2020
Xuan Yang	2020-
Kareem Galal	2020-
Anwar Hossain	2020-

### **Graduate Student Advisor**

Han Wee Ong	2020-
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### **Rotation Student Advisor**

Maddie Jenner, Rebecca Johnson, Han Wee Ong, Peter Buttery, David Shirley, Eric Merten, Meghan Ricciardi, Brian Anderson, Ivanna Zhilinskaya

### **UNC Undergraduate Research Advisor**

Hans Oh	2021
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### **Visiting Students Advisor**

Guillermo Correa Otero (Summer 2019, University of Puerto Rico at Cayey)  
Olamide Adepegba (Fall 2021, University College London)

## **Professional Service and Activities**

### **Service to the School and University**

CBMC recruitment weekend student interviews (2019, 2020, 2021)  
BBSP student interviews (2019, 2020, 2021)  
Eshelman Institute for Innovation grant application review (2021)

### **CBMC Doctoral Committee Member**

2020	Peter Buttery (chair)
2020	Rebecca Johnson (chair)
2020	David Shirley (chair)
2020	Han Wee Ong

### **CBMC Student Advisory Committee Member**

2021	Ivanna Zhilinskaya
2021	Jon-Michael Beasley (chair)
2020	David Shirley

### **Other Professional Activities**

2021	Grant Reviewer Marsden Fund
2019-	Grant reviewer Fibrolamellar Cancer Foundation
2018-	Steering Committee Dream Challenge
2017-	NIH Grant review study sections: Synthetic and Biological Chemistry A (SBCA) Study Section February 2022); High Throughput Screening (March 2020, July 2020, October 2020); Drug

Discovery and Molecular Pharmacology (DMP) (June 2017, February 2019 – alternate chair, October 2019)

2017- Consultant/Advisor, Meds4Kids

2017-2020 Board of Directors, Chordoma Foundation

2015- Scientific Advisory Board, Chordoma Foundation

2014- Member, American Association for Cancer Research (AACR)

1995- Peer Reviewer for journals: Nature, Nature Communications, Nature Biotechnology, Cell Chemical Biology, Journal of Medicinal Chemistry, ACS Medicinal Chemistry Letters, ACS Chemical Biology, Bioorganic and Medicinal Chemistry Letters, ChemMedChem, PLOS Neglected Tropical Diseases, British Journal of Cancer, SLAS Discovery, ACS Infectious Diseases, Bioorganic Chemistry, IUBMB Life, Scientific Reports, Cancer Research, ACS Combinatorial Science, Journal of Proteome Research, Drug Discovery Today

1990- Member, American Chemical Society (ACS)