Katherine Bakshian Chiappinelli, Ph.D.
Curriculum Vitae

Chiappinelli laboratory website: https://smhs.gwu.edu/chiappinelli-lab/
Chiappinelli laboratory Twitter account: https://twitter.com/ChiappinelliLab?lang=en
LinkedIn: www.linkedin.com/in/katherine-chiappinelli-6a9268a5

2. Education

2003-2007 B.S. in Biology and Music, Haverford College, Haverford, PA
2007-2012 Ph.D. in Developmental, Regenerative, and Stem Cell Biology, Laboratory of Dr. Paul Goodfellow, Washington University in St. Louis, St. Louis, MO

3. Employment

2012-2016 Postdoctoral Research Fellow. Laboratory of Dr. Stephen Baylin, Johns Hopkins University Baltimore, MD

2017-Present Assistant Professor, Department of Microbiology, Immunology, & Tropical Medicine, The George Washington University, Washington, DC

4. Professional Registrations, Licenses, Certifications, Patents and Technology Transfer

Li H*, **Chiappinelli KB***, Guzzetta AA*, Baylin SB, Zahnow CA, Ahuja N. "Predicting Response to Epigenetic Drug Therapy". International Patent Application No. PCT/US2015/015017, filed Feb. 9, 2015. **These authors contributed equally to the work.*

Chiappinelli KB, Strissel P, Strick R, Baylin SB. "Methods and Compositions for Treating Cancer." U.S. Provisional Patent Application No. 62/133,713, filed Mar. 16, 2015.

5. Societies and Honors

Professional Memberships and Activities

American Association for Cancer Research Associate Member	2010-2016
American Association for Cancer Research Active Member	2017-present
Member, International Cytokine & Interferon Society	2017-present

Honors and Awards

Cancer Biology Pathway Fellow (Washington University)	2008-2010
NIH Molecular Oncology Training Grant T32CA113275 (Washington University)	2008-2010
American Association for Cancer Research Member	2010-present
Student Poster Award, Molecular Genetics and Genomics Program	2010
Student Representative, 9th International Student Seminar (Kyoto, Japan)	2011
AACR-Bristol-Myers-Squibb Oncology Scholar-in-Training Award	2012
Rosalind Kornfeld Leadership Award (Washington University)	2012
DBBS Diversity Programs Award (Washington University)	2012
AACR/Aflac, Inc. Scholar-in-Training Award	2013
Ruth L. Kirchstein National Research Service Award (F32CA183214)	2014-2016
DOD TEAL Scholar (on Baylin OCRP TEAL Innovator Grant)	2014-2016
HHMT Travelling Fellow (HHMT 13th International Forum on Ovarian Cancer)	2015
AACR NextGenStars Award (AACR Annual Meeting)	2015
Honorable Mention, Johns Hopkins Kimmel Cancer Center Fellows Day	2015
A. McGehee Harvey Award, Johns Hopkins Young Investigator's Day	2016

AACR Scholar-in-Training Award (AACR Annual Meeting)	2016
K99/R00 Pathway to Independence award (R00CA204592)	2016-2019
NIH Early Career Reviewer Program	2017-2019
George Washington University Career Exploration & Development Program	2018
George Washington University Teaching Network for Early Career Faculty	2017-2018
AAMC Early Career Women Faculty Leadership Development Seminar	2019
Ovarian Cancer Academy Investigator	2020-2024

6. Administrative Duties & University Activities

a) Departmental

Thesis Committee Member

Indra Sarabia, PhD student of Dr. Alberto Bosque	2018-present
Mackenzie Carter, PhD student of Dr. Galadriel Hovel-Miner	2020

b) School of Medicine & Health Sciences

Member, Research Committee, School of Medicine & Health Sciences	2019-present

Thesis Committee Chair

Tony James, PhD student of Dr. Avindra Nath	2019-present

Thesis Committee Member

Brian Francica, PhD student of Dr. Drew Pardoll (Johns Hopkins University)	2014-2016
Coen Lap, PhD student of Dr. Alezandros Tzatsos	2017-present
Sonali Bahl, PhD student of Dr. Ed Seto	2017-present
Amulya Yaparla, PhD student of Dr. Leon Grayfer	2017-present
Meghali Goswami, PhD student of Dr. Christopher Hourigan	2017-present
Kaitlyn Garofano, PhD student of Dr. Norman Lee	2018-present
Matthew Bendall, PhD student of Dr. Keith Crandall	2018-2019
Sarah Deasy, PhD student of Dr. Kent Hunter	2018-2019
Nader Jameel, PhD student of Dr. Laura Elnitsky	2018-2019
Deborah Ledezma, PhD student of Dr. Rohan Fernandes	2019-present
Maria del Mar Grazia Hernandez, PhD student of Dr. Alejandro Villagra	2019-present
Erin Bonner, PhD student of Dr. Javed Nazarian	2019-present
Tessa Knox, PhD student of Dr. Norman Lee	2019-present
Keylie Gibson, PhD student of Dr. Keith Crandall	2019-present
Eden Dejene, PhD student of Dr. Ed Seto	2019-present
Sulgi Lee, PhD student of Dr. Javad Nazarian	2020

Steering Committee Member

Developmental, Regenerative, and Stem Cell Biology Program (DBBS), Wash U.	2008-2010
Diversity Steering Comm., Div Biology & Biomedical Sciences (DBBS), Wash. Univ	2010-2011
Chair, GW Cancer Center Basic Sciences Retreat Organizing Committee	2018
GW-Summer Program Advancing Research on Cancer Program	2018-present
GW Institute for Biological Sciences Cancer Biology Program	2018-present

c) University

Member, Office of the Vice President for Research Search Committee	2018
Member, High Impact Research Committee	2019-present

d) National & International

Editorial Board Appointments
Editorial Board Member*, Clinical Epigenetics* 2017-present

Professional Societies
Chair, Epigenetics Section of the Molecular and Cellular Biology, Genetics Subcommittee of the Program Committee for the AACR Annual Meeting 2019-present

Grant peer review activities
Ovarian Cancer Action (United Kingdom), peer reviewer 2018-present
Molecular Genetics B Study Section, National Institutes of Health, *ad hoc* reviewer 2019
Developmental Therapeutics Study Section, National Institutes of Health, *ad hoc* reviewer 2019
ZCA1 SRB-A Study Section, National Institutes of Health 2019-present
Rosetrees Trust (United Kingdom), peer reviewer 2019-present
French National Research Agency (France), peer reviewer 2019-present
Bern Precision Medicine Center (Switzerland), peer reviewer 2019-present
Medical Research Foundation (UK), peer reviewer 2019-present
Mark Foundation for Cancer Research, peer reviewer 2019-present
NCI-J Student Section, National Institutes of Health 2020-present
OSUCCC IRP Basic Science Grant Review 2020

Journal and editorial service
American Journal of Obstetrics and Gynecology (2011), *Oncogene* (2013), *Annals of Surgical Oncology* (2014), *Genome Research* (2015), *Oncotarget* (2015), *Cancer Research* (2017), *Proceedings of the National Academy of the Sciences* (2017), *Clinical Cancer Research* (2017), *Gene* (2017), *Clinical Epigenetics* (2018), *Trends in Genetics* (2018), *MIT Press* (2018), *Cell Reports* (2019), *Nature Communications* (2019), *Nature* (2019), *Cancer Discovery* (2020), *Epigenetics* (2020)

7. Educational Achievements

a) Courses Taught

Teaching Assistant **Biology 3191: Molec. Mechanisms in Development, Wash. U.** 2008
In addition to standard TA activities (preparing/grading exams, leading discussion sessions), I prepared and taught two 1.5 hour lectures on *D. melanogaster* eye development to undergraduates.

Co-Instructor; Lead Instructor Science Communication, Wash. U. 2009; 2010
Young Scientist Program (YSP) Summer Focus, Washington University in St. Louis
Role; Designed and taught an 8-week course for high school student Scholars participating in the Summer Focus research internship program.

Teaching Assistant, Biology 3371: Eukaryotic Genomes, Wash. U. 2010
In addition to standard TA activities (preparing/grading exams, leading discussion sessions), I prepared and taught four 1.5 hour lectures on RNA processing, noncoding RNA, telomeres, and transcriptional regulation to undergraduates.

Co-Instructor, Research Boot Camp (RBC), Wash. U. 2011

Young Scientist Program (YSP) Summer Focus. RBC is a two-day "crash-course" in common lab tools and techniques for high school students participating in the Summer Focus research internship program.

Foundations of Medicine 101, GW School of Medicine Health Sciences 2017-present
Role: give 2 lectures on "Molecular Regulation of Cell Death" and "Introduction to Cell Signaling Pathways" for medical students. Write associated exam questions. Contact hours: 3 per year.

Medical Genomics (BIOC6236) 2017-present
Role: Give 2 lectures on "Cancer genomics 3: epigenetics, DNA methylation, ChIPseq, CRISPR" and "Genomic tools to study repetitive elements, T cell receptor sequencing" to Master's students. Write and grade associated exam questions. Contact hours: 4 per year.

Biochemistry 6227 2017
Role: Co-Instructor. Led a unit on epigenetic regulation; introduced the topic to Master's students in biochemistry and facilitated discussion of three papers in the field in subsequent sessions. Contact hours: 8 per year.

Molecular and Cellular Immunology (MICR 8230) 2018-present
Role: give lecture and facilitate journal club on "Interferons and Inflammation" to PhD students. Contact hours: 3 per year.

Molecular Mechanisms of Human Disorders 2018-present
Role: give lecture and facilitate journal club on "Cancer Genetics" for PhD students. Write and grade associated exam questions. Contact hours: 4 per year.

Systems Physiology (BMSC8212) 2018-present
Role: give lecture on "Immunology" to PhD students. Write and grade associated exam questions. Contact hours: 4 per year.

b) New Courses Developed

AS.020.220.13: Epigenetics in Development and Disease, Johns Hopkins Univ 2015-2016
Department of Biology. Role: Co-Instructor. Along with another postdoctoral fellow, I organized and led a three-week intensive molecular biology elective (1 credit/18 hours) for undergraduates.

Cancer Bio Seminar (CANC 8214) GW School of Medicine Health Science 2018-present
Role: Course Director for PhD student seminar. Contact hours: 32 per year.

Cancer Immunology (CANC 8223) GW School of Medicine Health Science 2020-present
Role: Course director. Contact hours: 48 per year.

c) Students and postdoctoral fellows for whom I served as primary research advisor

Postdoctoral fellows
Elisa Arthofer The role of P53 in epigenetic regulation of repetitive elements 2017-2019
James McDonald, Epigenetic regulation of repetitive elements in cancer 2017-2019

PhD students

Stephanie Gomez,The role of RNA editing in repetitive element regulation, 2018-present
Recipient of GW Summer Pre-Dissertation Fellowship, 2019
Recipient of Travel Award to AACR Ovarian Cancer Meeting, 2019

Tomas Kanholm, Epigenetic regulation and expression of repetitive elements during cancer progression 2019-present
Erin Grundy, Repetitive elements as tumor antigens 2020-present

Medical students
Juan Nogues Repetitive element reactivation by epigenetic therapy in lymphoma 2017-
Kyle Roche, Combination DNMTi and HDAC6i treatment for ovarian cancer 2018
Michelle Soloff, Establishing a GWU ovarian cancer biobank and database 2018-2019

Undergraduates
Ben Akman, (U Maryland), ERV protein expression after epigenetic therapy 2014-2015
Noor Diab, (GWU) P53 in epigenetic regulation of repetitive elements 2017-present
Undergraduate Research Award, 2018, Honors Thesis in Biology, 2018
Aneil Srivastava, (GWU) DNMTi and HDAC6i treatment for ovarian cancer 2017-2018
Alejandro Velasquez, (GWU) Epigenetic regulation of repetitive elements 2017-2019
Ann Obi, (Prairie View) DNMTi 5-azacytidine in nanoparticle formulation 2018
First Place at Texas A&M Prairie View University 2018 Biology Undergraduate Research Symposium
Julie Kobyra, (GWU) DNMTi 5-azacytidine in nanoparticle formulation 2018-2020
GW Undergraduate Research Award, 2019
Parth Patel, (GWU) P53 in epigenetic regulation of repetitive elements 2019-
Uzma Rentia, (GWU), Epigenetic regulation of repetitive elements in cancer 2020-

High school students
Mai Nguyen, High School Student (Young Scientist Program) 2011-2012
Isaani Patnaik, High School Student (Stand Up to Cancer Emperor Science Award) 2017
Quinn O'Connor, High School Student 2017
Ellen Carrier, High School Student 2019

8. Scholarly Publications

a) Papers in Refereed Journals

Saharia A, Teasley DC, Duxin JP, **Chiappinelli KB**, Dao B, Stewart SA. FEN1 ensures telomere stability by facilitating replication fork re-initiation. *The Journal of Biological Chemistry.* **285**(35): 27057-66. 2010.

Ramsingh G, Kobolt DC, Trissal M, **Chiappinelli KB**, Wylie T, Koul S, Chang LW, Nagarajan R, Fehniger TA, Goodfellow P, Magrini V, Wilson RK, Ding L, Ley TJ, Mardis ER, Link DC. Complete characterization of the microRNAome in a patient with acute myeloid leukemia. *Blood*. **116**(24): 5316-26. 2010.

Chiappinelli KB, Rimel BJ, Massad LS, Goodfellow PJ. Infrequent methylation of the DUSP6 phosphatase in endometrial cancer. *Gynecologic Oncology.* **119**(1): 146-50. 2010.

Ioffe YI, **Chiappinelli KB**, Mutch DG, Zighelboim I, Goodfellow PJ. Phosphatase and tensin homolog (PTEN) pseudogene expression in endometrial cancer: a conserved regulatory mechanism important in tumorigenesis? *Gynecologic Oncology.* **124**(2); 340-346. 2012.

Chiappinelli KB, Haynes BC, Brent MR, Goodfellow PJ. Reduced DICER1 elicits an interferon response in endometrial cancer cell lines. *Molecular Cancer Research.* **10**(3): 316-25. 2012.

Yin Y, Kizer N, Thaker P, **Chiappinelli KB**, Trinkhaus K, Goodfellow PJ, Ma L. Glycogen synthase kinase 3β inhibition as a therapeutic approach in the treatment of endometrial cancer. *The International Journal of Molecular Sciences,* **14**(8):16617-16637. 2013.

Yi JM, Guzzetta AG, Bailey VJ, Downing SR, van Neste L, **Chiappinelli KB**, Keeley BP, Stark A, Herrera A, Wolfgang C, Pappou EP, Iacobuzio-Donahue CA, Goggins MG, Herman JG, Wang TH, Baylin SB, Ahuja N. Novel methylation biomarker panel for the early detection of pancreatic cancer. *Clinical Cancer Research.* **19**(23):6544-55. 2013.

Li H**, **Chiappinelli KB****, Guzzetta AA**, Easwaran H, Yen RW, Vatapalli R, Topper MJ*, Luo J, Connolly RM, Azad NS, Stearns V, Pardoll DM, Davidson N, Jones PA, Slamon DJ, Baylin SB, Zahnow CA, Ahuja N. Immune regulation by low doses of the DNA methyltransferase inhibitor 5-azacitidine in common human epithelial cancers. *Oncotarget*, **5**(3):587-98. 2014. ***indicates co-1st authors. *indicates trainee.*

Zhang B, Xing X, Li J, Lowdon RF, Zhou Y, Lin N, Zhang B, Sundaram V, **Chiappinelli KB**, Hagemann IS, Mutch DG, Goodfellow PJ, Wang T. Comparative DNA methylome analysis of endometrial carcinoma reveals complex and distinct deregulation of cancer promoters and enhancers. *BMC Genomics*, **15**:868. 2014.

Bowtell D, Böhm S, Ahmed A, Aspuria P-J, Bast RC Jr, Beral V, Berek JS, Birrer M, Blagden S, Bookman MA, Brenton J, **Chiappinelli KB**, Martins FC, Coukos G, Drapkin R, Edmondson R, Fotopoulou C, Gabra H, Galon J, Gourley C, Heong V, Huntsman D, Iwanicki M, Karlan B, Kaye A, Lengyel E, Levine DA, Lu K, McNeish I, Menon U, Narod S, Nelson BH, Nephew K, Pharoah P, Powell D, Ramos P, Romero I, Scott C, Sood AK, Stronach EA, Balkwill F. Rethinking ovarian cancer II: A Roadmap for reducing mortality from high-grade serous ovarian cancer. *Nature Reviews Cancer,* **15**(11):668-79. 2015.

Chiappinelli KB**, Strissel P**, Desrichard A**, Li H, Henke C, Akman B*, Hein H, Rote N, Cope LM, Snyder A, Makarov V, Budhu S, Slamon DJ, Wolchok JD, Pardoll DM, Beckmann M, Zahnow CA, Merghoub T, Chan TA, Baylin SB, Strick R. Inhibiting DNA methylation causes an interferon response via dsRNA including endogenous retroviruses. *Cell* **162**(5):974–986. 2015. ***indicates co-1st authors. *indicates trainee.*

Highlighted in *Previews, Cell* **162**(5): 938-939 and featured on cover*, Nature Medicine* "Notable advances of 2015" **21**:12 (1385-1386). 2015.*Nature Medicine* "Take two: Combining immunotherapy with epigenetic drugs to tackle cancer" **22**:1 (8-10). 2016. *New England Journal of Medicine* "Epigenetic modulators and the new immunotherapies" **374**:7 (684-686). 2016.

Chiappinelli KB, Zahnow CA, Ahuja N, Baylin SB. Combining epigenetic and immunotherapy to combat cancer. *Cancer Research,* **76:** 1683. 2016.

Chiappinelli KB, Moss B, Swain Lenz D, Tonge N, Joyce A, Holt GE, Holt LE, and Woolsey T. Evaluation to Improve a High School Summer Science Outreach Program. *The Journal of Microbiology and Biology Education* **17**(2):225-36. 2016.

Strick R, Strissel PL, Baylin SB, **Chiappinelli KB**. Unraveling the molecular pathways of DNA methylation inhibitors: Human endogenous retroviruses induce the innate immune response in tumors. *Oncoimmunology.* **5**(5): e1122160. 2016.

Siebenkäs C**, **Chiappinelli KB****#, Guzzetta AA, Sharma A, Jeschke J, Vatapalli R, Baylin SB, Ahuja N#. Inhibiting DNA methylation activates Cancer Testis Antigens and expression of the antigen processing and presentation machinery in colon and ovarian cancer cells. *PloS One* **12**(6):e0179501. 2017. ***indicates co-1st authors. #Co-corresponding authors.*

Topper MJ*, Vaz M, **Chiappinelli KB**, DeStefano Shields C, Niknafs N, Wenzel A, Hicks J, Ballew M, Stone M, Tran PT, Zahnow CA, Hellman MD, Anagnostou V, Strissel PL, Strick R, Velculescu VE, Baylin SB. *Cell,* **171(**6):1284-1300.e21. 2017. **indicates trainee.*

Stone M**, **Chiappinelli KB****, Li H, Murphy LM, Travers M, Topper MJ, Mathios D, Lim M, Shih I-M, Wang T-L, Hung C-F, Bhargava V, Wiehagen KR, Cowley GS, Bachman KE, Strick R, Strissel PL, Baylin SB, Zahnow CA. Epigenetic therapy activates type I interferon signaling in murine ovarian cancer to reduce immunosuppression and tumor burden. *PNAS* 2017 Dec 4. doi: 10.1073/pnas.1712514114. ***indicates co-1st authors.*

Moufarrij S*, Dandapani M*, Arthofer E*, Gomez S*, Srivastava A*, Lopez-Acevedo M, Villagra A, **Chiappinelli KB**. Epigenetic therapy for ovarian cancer: promise and progress. *Clin Epigenetics* **11**(1):7 2019. **indicates trainee.*

Pfannstiel C, Strissel PL, **Chiappinelli KB**, Sikic D, Wach S, Wirtz RM, Wullweber A, Taubert H, Breyer J, Otto W, Worst T, Burger M, Wullich B, Bolenz C, Fuhrich N, Geppert CI, Weyerer V, Stoehr R, Bertz S, Keck B, Erlmeier F, Erben P, Hartmann A, Strick R, Eckstein M; BRIDGE Consortium, Germany.The tumor microenvironment drives a prognostic relevance that correlates with bladder cancer subtypes. *Cancer Immunol Res*. **10**(1158): 2326-6066. 2019.

Gomez S*, Tabernacki T*, Kobyra J*, Roberts P*, **Chiappinelli KB**. Combining epigenetic and immune therapy to overcome cancer resistance. *Semin Cancer Biol.* doi: 10.1016/j.semcancer.2019.12.019. [Epub ahead of print] 2019. **indicates trainee.*

Moufarrij S, Srivastava A, Gomez S, Hadley M, Palmer E, Austin PT, Chisholm S, Roche K, Yu A, Li J, Zhu W, Lopez-Acevedo M, Villagra A, **Chiappinelli KB**. Combining DNMT and HDAC6 inhibitors increases anti-tumor immune signaling and decreases tumor burden in ovarian cancer. *Sci Rep*. **10**(1):3470. 2020. doi: 10.1038/s41598-020-60409-4.
HDAC6 plays a non-canonical role in the regulation of anti-tumor responses, dissemination, and invasiveness of breast cancer. Banik D, Noonepalle S, Hadley M, Palmer E, Gracia-Hernandez M, Zevallos-Delgado C, Manhas N, Simonyan H, Young CN, Popratiloff A, **Chiappinelli KB**, Fernandes R, Sotomayor EM, Villagra A. *Cancer Res*. 2020. doi: 10.1158/0008-5472.CAN-19-3738.

b) Papers in Non-Refereed Journals
Chiappinelli KB. The Young Scientist Program: Fostering diversity in science and public science literacy. *ASBMB Today.* October 2011.

c) Chapters in Books

Banik D, **Chiappinelli KB**, Villagra A. DNA Methylation and Histone Modifications in Autoimmunity, The Epigenetics of Autoimmunity, Rongxin Zhang, Elsevier, eBook ISBN: 9780128099285, Hardcover ISBN:9780128, 2018 Apr, Volume 5.

9. Presentations

a) Regional Presentations

Chiappinelli KB, Haynes BC, Brent MR, Goodfellow PJ. A genomics approach to understanding DICER1's role in tumorigenesis. Washington University in St. Louis Developmental Biology Program Retreat, St. Louis, MO. May 2011.

Chiappinelli KB, Haynes BC, Brent MR, Goodfellow PJ. A genomics approach to understanding DICER1's role in tumorigenesis. Washington University in St. Louis Molecular Genetics Program Retreat, St. Louis, MO. September 2011.

Chiappinelli KB, Haynes BC, Brent MR, Goodfellow PJ. Reduced DICER1 elicits an interferon response in endometrial cancer cell lines. Department of Developmental Biology, Washington University in St. Louis, St. Louis, MO. March 2012.

Chiappinelli KB, Haynes BC, Brent MR, Goodfellow PJ. Reduced DICER1 elicits an interferon response in endometrial cancer cell lines. Department of Obstetrics and Gynecology, Washington University in St. Louis, St. Louis, MO. April 2012.

Chiappinelli KB. Mechanisms of Gene Regulation: Epigenetics. Lecture in the course Bio630: Mechanisms of Gene Regulation at James Madison University. September 2014.

Chiappinelli KB. Epigenetic activation of the interferon response to sensitize cancers to immune therapy. The George Washington University, Washington, DC. March 2017.

Chiappinelli KB. Epigenetic control of endogenous retroviruses in cancer. The National Institutes of Health, Bethesda, MD. May 2017.

Chiappinelli KB. Epigenetic control of endogenous retroviruses in cancer: implications for immune therapy. NCI Microbial Based Cancer Therapy Conference, Bethesda, MD. July 2017.

Chiappinelli KB. Epigenetic control of endogenous retroviruses in cancer: implications for immune therapy. NCI Frederick, MD. July 2017.

Chiappinelli KB. Epigenetic control of endogenous retroviruses in cancer: implications for immune therapy,
2018 Local DC Comparative Immunology Meeting, Washington, DC. April 2018.

Chiappinelli KB. Epigenetic control of endogenous retroviruses in cancer: implications for immune
therapy, Scientific Research Department's seminar series at the Armed Forces Radiobiology Research Institute, Bethesda, MA. May 2018.

McDonald JI, Velasquez A, Gomez S, Bendall M, Xing X, Topper MJ, Baylin SB, Wang T, Crandall K, **Chiappinelli KB**. Identifying retroviral remnants that drive an immune response to cancer. RECOMB Conference, Washington, DC. April 2019.

Chiappinelli KB. Epigenetic control of repetitive elements in cancer. 2019 Local DC Comparative Immunology Meeting, Washington, DC. May 2019.

b) National Presentations

Saharia A, Teasley DC, Dao B, **Chiappinelli KB**, Stewart SA. FEN1 facilitates replication fork reinitiation and ensures telomere stability. AACR The Role of Telomeres and Telomerase in Cancer Research, Fort Worth, TX. March 2010.

Ramsingh G, Kobolt DC, Trissal M, **Chiappinelli KB**, Wylie T, Koul S, Chang LW, Nagarajan R, Fehniger TA, Goodfellow P, Magrini V, Wilson RK, Ding L, Ley TJ, Mardis ER, Link DC. Complete characterization of the microRNAome in a patient with acute myeloid leukemia. AACR Translational Cancer Medicine, San Francisco, CA. July 2010.

Chiappinelli KB, Haynes BC, Schillebeeckx M, Mitra RD, Brent MR, Wang T, Goodfellow PJ. A genomics approach to understanding DICER1's role in tumorigenesis. The American Association for Cancer Research Annual Meeting, Orlando, FL. April 2011.

Lynch J, Moss B, **Chiappinelli KB**, Mosher J, Woolsey TA. The Young Scientist Program: successful use of a volunteer based outreach program created by graduate and medical students to improve science education in the St Louis Public School system. The American Association of Immunologists Annual Meeting, San Francisco, CA. May 2011

Kizer N, Yin Y, Trinkhaus K, **Chiappinelli KB**, Thompson DM, Ma L, Goodfellow PJ, Thaker P. Glycogen synthase kinase 3β inhibition as a therapeutic approach in the treatment of endometrial cancer. The Society for Gynecologic Oncology Annual Meeting, Austin, TX. March 2012.

Chiappinelli KB, Haynes BC, Brent MR, Goodfellow PJ. A genomics approach to understanding DICER1's role in tumorigenesis: Interferon responses in the cancer cell. The American Association for Cancer Research Annual Meeting, Chicago, IL. April 2012.

Sundaram V, Xie M, Zhang B, **Chiappinelli KB**, Goodfellow PJ, Wang T. Transposable elements and the epigenetic control of gene regulation of endometrial cancer. The American Association for Cancer Research Annual Meeting, Chicago, IL. April 2012.

Chiappinelli KB, Li H, Strissel PL, Yen RW, Zahnow CA, Strick R, Baylin SB. Immunomodulatory Effects of DNA Methylation Inhibitors in Ovarian Cancer Cell Lines. AACR Advances in Ovarian Cancer Research, Miami, FL. September 2013.

Chiappinelli KB, Strissel P, Desrichard A, Li H, Henke C, Akman B, Hein H, Rote N, Cope LM, Snyder A, Makarov V, Budhu S, Slamon DJ, Wolchok JD, Pardoll DM, Beckmann M, Zahnow CA, Merghoub T, Chan TA, Baylin SB, Strick R. Inhibiting Methylation Causes an Interferon Response in Cancer via dsRNA Including Endogenous Retroviruses. Center for Epigenetics, Van Andel Research Institute, Grand Rapids, MI. February 2015. ***Invited talk.***

Chiappinelli KB, Strissel P, Desrichard A, Li H, Henke C, Akman B, Hein H, Rote N, Cope LM, Snyder A, Makarov V, Budhu S, Slamon DJ, Wolchok JD, Pardoll DM, Beckmann M, Zahnow CA, Merghoub T, Chan TA, Baylin SB, Strick R. Inhibiting Methylation Causes an Interferon Response in Cancer via dsRNA Including Endogenous Retroviruses. AACR Annual Meeting, Philadelphia, PA. April 2015.

Chiappinelli KB, Strissel P, Desrichard A, Li H, Henke C, Akman B, Hein H, Rote N, Cope LM, Snyder A, Makarov V, Budhu S, Slamon DJ, Wolchok JD, Pardoll DM, Beckmann M, Zahnow CA, Merghoub T, Chan TA, Baylin SB, Strick R. Inhibiting DNA methylation causes an interferon response via dsRNA including endogenous retroviruses. AACR Chromatin and Epigenetics in Cancer; Atlanta, GA. September 2015.

Stone ML, **Chiappinelli KB**, Li H, Murphy L, Topper MJ, Mathios D, Lim M, Baylin SB, Zahnow CA. Epigenetic treatment of ovarian cancer cells increases immune cell recruitment to the tumor microenvironment: Implications for response to immune checkpoint therapy. AACR Advances in Ovarian Cancer Research, Orlando, FL. October 2015.

Topper M, Hanigan C, Vaz M, **Chiappinelli KB**, Justin J, Murphy L, Zahnow CA, Baylin SB. Combination Azacitidine and histone deacetylase inhibition induces a multi factorial synergistic anti-tumor response in non-small cell lung cancer (NSCLC). The American Association for Cancer Research Annual Meeting, New Orleans, LA. April 2016.

Stone ML, **Chiappinelli KB**, Li H, Murphy L, Topper MJ, Mathios D, Lim M, Baylin SB, Zahnow CA. Epigenetic treatment of ovarian cancer cells increases immune cell recruitment to the tumor microenvironment: Implications for response to immune checkpoint therapy. The American Association for Cancer Research Annual Meeting, New Orleans, LA. April 2016.

Chiappinelli KB, Stone ML, Topper MJ, Murphy L, Strissel PL, Strick R, Zahnow CA, Baylin SB. Inhibiting DNA methylation causes an interferon response in cancer cells via endogenous retroviruses and recruits immune cells to the tumor microenvironment to sensitize to immune therapy. The American Association for Cancer Research Annual Meeting, New Orleans, LA. April 2016.

Strissel PL, **Chiappinelli KB**, Strehl J, Wurfel FMB, Beckmann MW, Baylin SB, Strick R. Human endogenous retroviruses differentially regulate immune checkpoints and modulation of immune responses in serous ovarian carcinoma. The American Association for Cancer Research Special Conference on Tumor Immunology and Immunotherapy, Boston, MA. October 2016.

Hadley M, Shen S, Banik D, Kim J, Nair J, Knox T, Gallub V, Kirkland S, **Chiappinelli KB**, Sotomayor S, Kozikowski A, Villagra A. In vivo evaluation of Ames negative HDAC6 inhibitor in melanoma model. The American Association for Cancer Research Annual Meeting, Washington, DC. April 2017

Chiappinelli KB. The effects of epigenetic therapies on the tumor and host immune system. CHI International Conference, Boston, MA. June 2017. ***Invited talk.***

Chiappinelli KB. Epigenetic control of endogenous retroviruses in cancer: implications for immune therapy. FASEB Meeting on Mobile DNA Elements in Mammalian Genomes, Big Sky, MT. June 2017. ***Invited talk.***

Chiappinelli KB. Epigenetic control of endogenous retroviruses in cancer and activation of the innate immune response. NCI Workshop on “Mechanistic links between the DNA-damage response network & immunogenic toxicity in transformed cells”, Rockville, MD. August 2017. ***Invited talk.***

Chiappinelli KB. Epigenetic regulation of noncoding RNA in cancer and its effects on the immune microenvironment. AACR Special Conference on Targeting DNA Methylation and Chromatin for Cancer Therapy. Atlanta, GA. March 2018.

Chiappinelli KB. The effects of epigenetic therapies on the tumor and host immune system. Cambridge Healthtech Institute International Conference Drug Discovery. San Diego, CA. April 2018. ***Invited talk.***

Srivastava AP, Moufarrij SM, Hadley M, Chisholm S, Lopez-Acevedo M, Villagra A, **Chiappinelli KB**. HDAC6 and DNMT inhibition affect immunogenicity of ovarian cancer cells: A rationale for combining epigenetic and immune therapy in ovarian cancer. AACR Annual Meeting, Atlanta, GA. April 2018.

Obi A, Gomez S, **Chiappinelli KB**. Poly(lactic-co-glycolic acid) and 5-Azacytidine Nano-Particle Effectiveness on Free Azacytidine Stability and DNA Methylation. ABRCMS, Indianapolis, IN. October 2018.

Chiappinelli KB. Epigenetic Activation of the Interferon Response to Sensitize Cancers to Immune Therapy. American Society for Pharmacology & Experimental Therapeutics Annual Meeting, Orlando, FL. April 2019. ***Invited talk.***

Gomez S, Diab N, McDonald JI, Arthofer E, **Chiappinelli KB**. The role of mutant P53 in repetitive element regulation and the immune response in ovarian cancer. AACR Special Conference on Ovarian Cancer Research, Atlanta, Georgia. September 2019.

Chiappinelli KB. Epigenetic regulation of repetitive elements in ovarian cancer. Center for Research on Reproduction and Women's Health at the University of Pennsylvania Health System and Perelman School of Medicine seminar series. January 2020. ***Invited talk.***

c) International Presentations

Chiappinelli KB, Haynes BC, Brent MR, Goodfellow PJ. A genomics approach to understanding DICER1's role in tumorigenesis. 9th International Student Seminar, Kyoto, Japan. March 2011. ***Invited talk.***

Chiappinelli KB, Strissel P, Li H, Henke C, Akman B, Hein H, Zahnow CA, Strick R, Baylin SB. Inhibiting Methylation Causes an Interferon Response in Cancer via dsRNA Including Endogenous Retroviruses. HHMT 13th International Forum on Ovarian Cancer, Toledo, Spain. January 2015.

Chiappinelli KB, Strissel P, Li H, Henke C, Akman B, Hein H, Zahnow CA, Strick R, Baylin SB. Inhibiting Methylation Causes an Interferon Response in Cancer via dsRNA Including Endogenous Retroviruses. Gordon Conference: Cancer Genetics and Epigenetics, Lucca, Italy. April 2015.

Chiappinelli KB. Epigenetic regulation of repetitive elements in cancer. Gordon Research Conference on Cancer Genetics & Epigenetics, Lucca, Italy. April 2019. ***Invited talk.***

McDonald JI, Velasquez A, Gomez S, Bendall M, Xing X, Topper MJ, Baylin SB, Wang T, Crandall K, **Chiappinelli KB**. Identifying retroviral remnants that drive an immune response to cancer. Gordon Research Conference on Cancer Genetics & Epigenetics, Lucca, Italy. April 2019.

10. Grants Awarded or Pending

Washington University Molecular Oncology Training Program (T32CA113275)
National Institutes of Health/ National Cancer Institute
08/15/08-08/14/10
Yearly Direct Cost of Award: $500,000
Role: Ph. D. Student
100% effort

Combined Epigenetic and Immune Therapy in Ovarian Cancer (F32CA183214)
National Institutes of Health/ National Cancer Institute
08/01/2014- 04/30/2016
Yearly Direct Cost of Award: $94,138
Role: PI
96.2% effort

A New Paradigm for the Treatment of Ovarian Cancer: The Use of Epigenetic Therapy to Sensitize Patients to Immunotherapy and Chemotherapy (OC130454) DOD/Congressional Directed Medical Research Program/Ovarian Cancer Research Program
09/30/2014- 09/29/2019
Yearly Direct Cost of Award: $500,000
Role: TEAL Scholar
3.8% (Effort only – salary was covered by F32 CA183214)

Epigenetic activation of the interferon response to sensitize cancers to immune therapy (R00CA204592)
National Institutes of Health/ National Cancer Institute
05/03/2016- 12/31/2019
Yearly Direct Cost of Award: $185,172
Role: PI
50% effort

Role of human endogenous retroviruses in tumor immunity of ovarian carcinoma (R21CA227259)
National Institutes of Health/ National Cancer Institute
06/10/2018-05/31/2021 (NCE)
Yearly Direct Cost of Award: $125,000
Role: PI
10% effort

Epigenetic modification and expression of retroelements in cancer development
The Mathers Foundation

06/15/2018-12/15/2020 (NCE)
Yearly Direct Cost of Award: $150,000
Role: PI
10% effort

Reversing immune evasion in ovarian cancer through nanoparticle-directed epigenetic modulation
Collaborative Development Research Fund, George Washington University Office of the Vice President for Research
07/01/2018-06/30/2019
Yearly Direct Cost of Award: $37,401
Role: PI
10% effort

Exploring the role of repetitive elements as potential cancer antigens
Children's National/George Washington University CTSI Voucher
01/01/2019-05/31/2019
Yearly Direct Cost of Award: $4,000
Role: PI
10% effort

Harnessing Antigen-Specific T-Cell Repertoires at the HIV-ERV Interface Against HIV Associated Lymphomas
The George Washington University Cancer Center
07/15/2019-06/30/2020
Yearly Direct Cost of Award: $50,000
Role: PI
10% effort

Targeting repetitive elements to reverse immune evasion in ovarian cancer
DOD OCRMP
05/15/2020-04/31/2024
Yearly Direct Cost of Award: $181,250
Role: PI
30% effort

Identifying and validating transposable elements impacting cancer
Innovation Award, GW Milken School of Public Health
04/01/2020-01/31/2021
Yearly Direct Cost of Award: $50,000
Role: co-PI (PI: Keith Crandall)
10% effort

Toxoplasma gondii: host immunity and pathogenesis
NIH NIAID
04/01/2020-03/31/2025
Yearly Direct Cost of Award: $250,000
Role: Co-I (PI: Imtiaz Khan)
10% effort

12. Service to Community

Committee Member and Volunteer (unpaid) 2008-2012
Young Scientist Program
Washington University School of Medicine, St. Louis, MO

Summer Focus Co-Head (unpaid) 2011
Young Scientist Program
Washington University School of Medicine, St. Louis, MO

Student Director 2010-2011
Young Scientist Program
Washington University School of Medicine, St. Louis, MO

Tutor (unpaid) 2012-2014
Junior Biomedical Scholars, Johns Hopkins University, Baltimore, MD

Big Sister (Mentor) (unpaid) 2012-2015
Big Brothers Big Sisters of the Greater Chesapeake, Baltimore, MD

Volunteer (unpaid) 2013-2016
The Johns Hopkins Sidney Kimmel Comprehensive Cancer Center Community Science Day
Baltimore, MD
Volunteer Educator (unpaid) 2013-2016
STEMnet, Baltimore, MD

Mentor (unpaid), 1000 Girls- 1000 Futures, New York Academy of Science 2015-2016

Volunteer (unpaid), STEM Night, Henderson-Hopkins School, Baltimore, MD 2016

4th Grade Math Tutor (unpaid), Henderson-Hopkins School, Baltimore, MD 2016

American Cancer Society Ambassador 2017-present

Isolating DNA from Strawberries Workshop, Girl Scouts of America 2018

Isolating DNA from Strawberries Workshop, Carnegie Science First Light Program 2018

Leader, Power Hour at Gordon Research Conference on Cancer Genetics & Epigenetics 2019