

Lucia Borriello, Ph.D.Assistant Professor
Department of Cancer and Cellular Biology
Lewis Katz School of Medicine & Fox Chase Cancer Center
Philadelphia**HONORS, AWARDS & SCHOLARSHIPS**

Member of the ASCB Nominating Committee	2023
Chair, Young Investigator Symposium, 19 th Metastasis Research Congress, Buenos Aires, AR	2022
Gridley McKim-Smith Women's Health Fellowship Award	2021
Ambassador, American Society for Cell Biology	2021-
Planning Committee, Virtual Town Hall Meeting, Metastasis Research Congress	2020
Early Career Investigator Award, METAvivor Breast Cancer Foundation	2020
Dennis Shields Postdoctoral Research Prize, Poster Award, Albert Einstein College of Medicine	2019
Board of Directors, Metastasis Research Society	2018-20
Co-Chair, Young Investigator Symposium, 17 th Metastasis Research Congress, Princeton, NJ	2018
Planning Committee, 17 th Metastasis Research Congress, Princeton, NJ	2018
Travel Award, 17 th Metastasis Research Congress, Princeton, NJ	2018
Chair, Early Career Leadership Council, Metastasis Research Society	2017-20
Travel Award, 16 th Metastasis Research Congress, Chengdu, China	2016
Co-Chair, Young Investigator Symposium, 16 th Metastasis Research Congress, Chengdu, China	2016
Planning Committee, 16 th Metastasis Research Congress, Chengdu, China	2016
Research Career Development Award, Children's Hospital Los Angeles, CA	2015
Planning Committee, 7 th NCI-Tumor Microenvironment Junior Investigators Meeting, Bethesda	2016
Co-Chair, 6 th - NCI-Tumor Microenvironment Junior Investigators Meeting, Los Angeles	2015
Planning Committee, 6 th NCI-Tumor Microenvironment Junior Investigators Meeting, Los Angeles	2015
Planning Committee, 5 th NCI-Tumor Microenvironment Junior Investigators Meeting, Bethesda	2014
Ambassador, Early Career Leadership Council, Metastasis Research Society	2014-17
Ambassador, European Association for Cancer Research	2013-
European Union "Leonardo Da Vinci" Scholarship, Sapienza University of Rome, Italy	2009
Research Scholarship, Queens University Belfast, Ireland	2008

EDUCATION AND TRAINING

Ph.D. Cancer Biology/Pharmacology, with highest honors	2009-12
University of Paris, Sorbonne Cité Descartes, Paris, France	
<u>Dissertation</u> : Development of New Small Molecules to Inhibit VEGF/Neuropilins Interaction	
M.S. Biotechnology of Reproduction, with highest honors	2006-08
University of Teramo, Italy and Queen's University of Belfast, Ireland	
<u>Dissertation</u> : Effect of the Cannabinoid HU-210 on Spermatogenesis in Rats	
B.S. Biotechnology, with highest honors	2003-06
University of Teramo, School of Bioscience, Teramo, Italy	
<u>Dissertation</u> : Role of Iron in the Lipoxygenase-1 Activity	

RESEARCH EXPERIENCE

Post-Doctoral Research (Breast Cancer Metastasis, Dormancy, Imaging) 7/2017 - 8/2022

Albert Einstein College of Medicine, Department of Anatomy and Structural Biology, Bronx, NY

Mentor: Dr. John S. Condeelis. Co-Mentor: Dr. David Entenberg

Project 1: *Elucidating the Mechanisms of Tumor Cell Dissemination and Metastasis*

Project 2: *Investigating the Mechanisms of Tumor Cell Re-Dissemination from Secondary to Tertiary Sites.*

Post-Doctoral Research (Tumor Microenvironment, Therapeutic Resistance) 11/2012 - 6/2017

Children's Hospital Los Angeles, Department of Hematology and Oncology, Los Angeles, CA

Mentor: Dr. Yves A. DeClerck

Project 1: *Studying the Role of Stromal Cells in Neuroblastoma Progression and Therapeutic Resistance*

Project 2: *Investigating the Role of Sulfatase-2 in Neuroblastoma Progression*

Graduate Research (Breast Tumor Angiogenesis, Drug Development and Design) 9/2009 - 10/2012

University Paris Descartes - Sorbonne Paris Cité, Faculty of Medicine, Paris, France

Mentors: Dr. Françoise Raynaud and Dr. Yves Lepelletier

Project 1: *Targeting Tumor Angiogenesis in Breast Cancer*

Project 2: *Elucidating the Role of Phosphatase Actin Regulator-1 in Tumor Angiogenesis*

Visiting Researcher (Female and Male Reproductive Systems) 1/5/2006 - 31/8/2006

Queen's University of Belfast, School of Medicine, Center for Public Health, Ireland

Mentors: Emeritus Prof. Sheena Lewis and Dr. Mauro Maccarrone

Project: *Studying the Effect of Cannabinoid HU-210 on Spermatogenesis in Rats*

RESEARCH GRANT SUPPORT

Gridley McKim-Smith Women's Health Fellowship Award 2021

Borriello L., Principal Investigator

Title: *Mechanisms of Dissemination and Dormancy of Breast Tumor Cells*

METAvivor Research Career Development Award 4/1/2020 - 10/20/2021

Borriello L., Principal Investigator

Title: *Targeting the Mechanism of Re-Dissemination and Metastasis in Stage IV Breast Cancer.*

Research Career Development Award of the Saban Research Institute 1/8/2015 - 30/7/2017

Borriello L., Principal Investigator

Title: *Investigating the Mechanisms of Mesenchymal Stromal Cells – Mediated Drug Resistance in Neuroblastoma.*

European Union "Leonardo Da Vinci" Project Unipharma - Graduates 5 9/21/2009 - 3/5/2010

Sapienza University of Rome, Italy

Scholarship awarded to pursue my doctoral degree at the University Paris Descartes - Paris, France.

Queen's University of Belfast, School of Medicine, Ireland 5/1/2009 - 7/30/2009

Scholarship awarded to establish a collaboration with the Emeritus Prof. Sheena Lewis, and to study the effect of the cannabinoid HU-210 on spermatogenesis in rats.

LEADERSHIP & PROFESSIONAL SERVICE

Planning Committee, ASCB Nominating Committee 2023

Chair, Young Investigators Section, 19th Metastasis Research Congress, Buenos Aires, AR 2022

Co-Leader, Postdoctoral Recruitment Events, Albert Einstein College of Medicine, NY 2022

Ambassador, American Cancer Society's ResearchHERS 2022 -

Ambassador, American Society for Cell Biology 2021 -

Moderator, Departmental Work-in-Progress Seminars, Albert Einstein College of Medicine, NY 2018-19

Board of Directors , Metastasis Research Society	2018-20
Chair , Young Investigators of the Metastasis Research Society (MRS)	2017-20
<i>Main Responsibilities:</i> - Leading a group of young investigators around the world	
- Promoting the career development of young investigators	
- Establishing relationship with senior metastasis researchers	
- Organizing and hosting webinars on scientific topics and career development	
- Writing short communications for cancer patients	
- Organizing MRS conferences (organizing agenda, selecting abstracts, inviting speakers, etc)	
- Recruiting new young investigators	
Co-Chair , Young Investigators Symposium, 17 th Metastasis Research Congress, Princeton, NJ	2018
Planning Committee , 17 th Metastasis Research Congress, Princeton, NJ	2018
Co-Chair , Young Investigators Symposium, 16 th Metastasis Research Congress, Chengdu, China	2016
Planning Committee , 16 th Metastasis Research Congress, Chengdu, China	2016
Planning Committee , 7 th NCI-Tumor Microenvironment Junior Investigators Meeting, Bethesda	2016
Co-Chair , 6 th NCI-Tumor Microenvironment Junior Investigators Meeting, Los Angeles, CA	2015
Planning Committee , 6 th NCI-Tumor Microenvironment Junior Investigators Meeting, Los Angeles	2015
Planning Committee , 5 th NCI-Tumor Microenvironment Junior Investigators Meeting, Bethesda	2014
Ambassador , European Association Cancer Research Society	2014 -
Ambassador , Metastasis Research Society	2014-17

EDITORIAL SERVICE

Editorial Board

Frontiers in Molecular Diagnostics and Therapeutics	2020 -
Frontiers in Cell and Developmental Biology	2021 -
Frontiers in Cell Adhesion and Migration	2021 -

Manuscript Reviews

Applied Sciences, Biology, Biomolecules, Cancers, Cancer and Metastasis Reviews, Cancer Biomarkers, Cancer Cell International, Cytometry Part A, Clinical and Experimental Metastasis, Current Pharmaceutical Design, Gene, International Journal of Molecular Sciences, Journal of Neurophysiology, Metabolism, Molecules, Molecular Therapy-Nucleic Acids, Toxicology, Journal of Oncology.

Abstract Reviews

Terra New York STEM Fair (2021), Metastasis Research Society Conferences (2016, 2018, 2021), Annual Biomedical Research Conference for Minority Students (2015, 2016), California State Science Fair (2016, 2017), Graduate Research Symposium at Cedars-Sinai Medical Center, Los Angeles, CA (2016)

TEACHING

Fundamentals of Course Design and Teaching, Albert Einstein College of Medicine, Bronx, NY	2021
Lectures - Tumor Microenvironment & Drug Resistance Course - Medical School, Paris, France	2020-21-22

MENTORING

Brian Traub, T32 Clinical Fellow, Albert Einstein College of Medicine, NY	2018-22
Anouchka Coste, T32 Clinical Fellow, Albert Einstein College of Medicine, NY	2017-20
Tracy Tran, Rotation Student, University of Southern California, CA	2015
Valeria Solari, Surgeon Clinical Fellow, Children's Hospital Los Angeles, CA	2013-14
Rogerio Caro, Student, Latino/African American High School Program, Children's Hospital Los Angeles	2013

ADVISOR, MEMBER RESEARCH COMMITTEE

Allegra Seeler, Master Student, University of Paris & Albert Einstein College of Medicine	2022
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PROFESSIONAL SOCIETY MEMBERSHIPS

American Society for Bone and Mineral Research	2022 -
American Association of Immunologists	2022 -
Association for Women in Science	2022 -
American Association for the Advancement of Science	2020 -
New York Academy of Sciences	2020 -
American Society for Matrix Biology	2020 -
Society for Leukocyte Biology	2019 -
American Society for Cell Biology	2017 -
American Association for Cancer Research - Tumor Microenvironment Working Group	2013 -
International Cancer Microenvironment Society	2013 -
Metastasis Research Society	2012 -
European Association for Cancer Research	2012 -
Italian Association Cancer Research	2010 -
Italian Association of Biotechnology	2008 -13

INVITED TALKS

- 1. Metastasis Research Society Conference.** Cancer Cell Dissemination and Dormancy: A Tumor Microenvironment Perspective. *Buenos Aires, Argentina*. November 2022.
- 2. International Conference on Cancer Research and Drug Development.** Primary tumor associated macrophages activate programs of invasion and dormancy in disseminating tumor cells. *Boston, US*. October 2022.
- 3. 33rd Annual Usha Mahajani Symposium on Molecular Medicine, Salk Institute.** Cancer Cell Dissemination and Dormancy: A Tumor Microenvironment Perspective. *San Diego, US*. September 2022.
- 4. Icahn School of Medicine at Mount Sinai.** Cancer Cell Dissemination and Dormancy: A Tumor Microenvironment Perspective. *New York, US*. April 2022.
- 5. Academia International Webinar on Cancer Research and Therapeutics.** Primary tumor associated macrophages activate programs of invasion and dormancy in disseminating tumor cells. Virtual. March 2022.
- 6. University of Minnesota, Masonic Cancer Center.** Cancer Cell Dissemination and Dormancy: A Tumor Microenvironment Perspective. March 2022 (*Faculty Interview*).
- 7. University of Wisconsin-Madison, Carbone Cancer Center.** Cancer Cell Dissemination and Dormancy: A Tumor Microenvironment Perspective. March 2022 (*Faculty Interview*).
- 8. University of Nebraska, Medical Center.** Cancer Cell Dissemination and Dormancy: A Tumor Microenvironment Perspective. March 2022 (*Faculty Interview*).
- 9. Lewis Katz School of Medicine, Fox Chase Cancer Center.** Cancer Cell Dissemination and Dormancy: A Tumor Microenvironment Perspective. February 2022 (*Faculty Interview*).
- 10. University of Alabama, Cancer Center.** Cancer Cell Dissemination and Dormancy: A Tumor Microenvironment Perspective. February 2022 (*Faculty Interview*).
- 11. Drexel University, Department of Biochemistry & Molecular Biology.** Cancer Cell Dissemination and Dormancy: A Tumor Microenvironment Perspective. January 2022 (*Faculty Interview*).

12. **University of New Mexico, Cancer Center.** Cancer Cell Dissemination and Dormancy: A Tumor Microenvironment Perspective. January 2022 (*Faculty Interview*).
13. **The Geisel School of Medicine at Dartmouth, Norris Cotton Cancer Center.** Cancer Cell Dissemination and Dormancy: A Tumor Microenvironment Perspective. December 2021 (*Faculty Interview*).
14. **Western University of Health Sciences.** Cancer Cell Dissemination and Dormancy: A Tumor Microenvironment Perspective. November 2021 (*Faculty Interview*).
15. **University at Buffalo.** Cancer Cell Dissemination and Dormancy: A Tumor Microenvironment Perspective. November 2021 (*Faculty Interview*).
16. **New York Medical College School of Medicine.** Cancer Cell Dissemination and Dormancy: A Tumor Microenvironment Perspective. November 2021 (*Faculty Interview*).
17. **Indiana University, Cancer Center.** Cancer Cell Dissemination and Dormancy: A Tumor Microenvironment Perspective. November 2021 (*Faculty Interview*).
18. **Roswell Park, Cancer Center.** Cancer Cell Dissemination and Dormancy: A Tumor Microenvironment Perspective. October 2021 (*Faculty Interview*).
19. **International Conference on Cancer Research and Drug Development.** Cancer Cell Dissemination and Dormancy: A Tumor Microenvironment Perspective. October 2021.
20. **Grand Round, Children's Hospital Los Angeles, USC.** Cancer Cell Dissemination and Dormancy: A Tumor Microenvironment Perspective. September, 2021
21. **University of Kansas, Department of Cancer Biology.** Cancer Cell Dissemination and Dormancy: A Tumor Microenvironment Perspective. June 2021 (*Faculty Interview*).
22. **Cleveland Clinic, Department of Cancer Biology.** Cancer Cell Dissemination and Dormancy: A Tumor Microenvironment Perspective. May 2021 (*Faculty Interview*).
23. **Baylor College of Medicine, Lester and Sue Smith Breast Center.** Cancer Cell Dissemination and Dormancy: A Tumor Microenvironment Perspective. May 2021 (*Faculty Interview*).
24. **American Association for Cancer Research (AACR) Annual Meeting.** Intravital Microscopy at Single Cell Resolution Reveals the Mechanism of Cancer Cell Dissemination and Metastasis. *Atlanta, GA.* 2019
25. **17th Biannual Metastasis Research Congress.** Intravital Microscopy at Single Cell Resolution Reveals the Mechanism of Cancer Cell Dissemination and Metastasis. *Princeton, NJ.* 2018
26. **American Society for Cell Biology.** A Novel Window for High Resolution Imaging of the Lung Reveals Mechanisms of Metastatic Breast Cancer Progression. *Philadelphia, PA.* 2017
27. **16th Biannual Metastasis Research Congress.** Mesenchymal Stromal Cells Create a Protumorigenic Microenvironment that is STAT3 and ERK1/2-dependent. *Chengdu, China.* 2016
28. **7th NCI-Tumor Microenvironment Junior Investigators Meeting.** Mesenchymal Stromal Cells Create a Protumorigenic Microenvironment that is STAT3 and ERK1/2-dependent. *Bethesda, MD.* 2016
29. **Advances in Neuroblastoma Research Conference.** Bone Marrow-derived Mesenchymal and Tumor-Associated Fibroblasts Contribute to a Pro-tumorigenic Microenvironment that Promotes Drug Resistance in Neuroblastoma. *Cologne, Germany.* 2014
30. **5th NCI-Tumor Microenvironment Junior Investigators Meeting.** Bone Marrow-derived Mesenchymal Stromal Cells Contribute to a Pro-tumorigenic Microenvironment that Promotes Drug Resistance in Neuroblastoma. *Bethesda, MD.* 2014

31. **German Cancer Research Center Meeting, DKFZ.** Biological Studies of New Therapeutic Targets in the Angiogenesis Process". Division of Vascular Oncology and Metastasis. *Heidelberg, Germany.* 2012

POSTER PRESENTATIONS AT CONFERENCES

1. **ASCB Annual Meeting.** Investigating the Molecular Mechanisms Underlying Efficient Metastatic Extravasation. *Virtual, 2021*
2. **AACR Annual Meeting.** Macrophage Contact-Dependent Stemness Induction and Progressive CSC Enrichment During Metastatic Dissemination in Breast Cancer. *Virtual, 2020*
3. **Dennis Shields Postdoctoral Poster Session, Albert Einstein College of Medicine.** Intravital Imaging at Single Cell Resolution Reveals, for the First Time, the Mechanism of Cancer Cell Dissemination and Metastasis. *Bronx, NY. 2019. Best Poster Award.*
4. **Microscience Microscopy Congress.** Tracking the Fate of Individual Disseminated Tumor Cells to Determine the Role of Premetastatic Conditioning. *England, Manchester. 2019*
5. **Annual Meeting of Surgical Oncology Society.** Tracking the Fate of Individual Disseminated Tumor Cells to Determine the Role of Premetastatic Conditioning. *San Diego, CA. 2019*
6. **Academic Surgical Congress.** Intravital Imaging of the Murine Lung Reveals the Efficiency of the Metastatic Cascade. *Huston, Texas, 2019.*
7. **17th Biannual Metastasis Research Congress.** Intravital Microscopy at Single Cell Resolution Reveals the Mechanism of Cancer Cell Dissemination and Metastasis. *Princeton, NJ. 2018*
8. **Advances In Neuroblastoma Research Conference.** Cancer Associated Fibroblasts are Present in Neuroblastoma Tumors and Contribute to a Pro-Tumorigenic Environment. *San Francisco, CA. 2018*
9. **The International Cancer Microenvironment Society.** Mesenchymal Stromal Cells and Cancer Associated Fibroblasts: Mediators of Inflammation in Cancer. *Lisbon, Portugal. 2018*
10. **Dennis Shields Postdoctoral Poster Session, Albert Einstein College of Medicine.** Investigating the Pre-conditioning of the Metastatic Niche using Intravital Imaging at Single Cell Resolution. *Bronx, NY. 2018.*
11. **San Antonio Breast Cancer Symposium.** Intravital imaging of the Lung Reveals the Efficiency of the Metastatic Cascade. *San Antonio, TX. 2018*
12. **Women-in-Surgery Symposium Conference.** Investigating Breast Cancer Pre-Conditioning of the Metastatic Niche Using a Window for High-Resolution Intravital Imaging of the Murine Lung. *Florida, 2018*
13. **American Society for Cell Biology.** A Novel Window for High Resolution Imaging of the Lung Reveals Mechanisms of Metastatic Breast Cancer Progression. *Philadelphia, PA. 2017*
14. **American Society for Cell Biology.** Hypoxia and Cancer Stem Cell Activity are Linked during Tumor Cell Dissemination and Metastasis in Breast Tumors. *Philadelphia, PA. 2017*
15. **Annual Poster Session, Children's Hospital Los Angeles.** Mesenchymal Stromal Cells Create a Protumorigenic Microenvironment that is STAT3 and ERK1/2-dependent. *Los Angeles, CA. 2016*
16. **AACR Annual Meeting.** Tumor Cell-derived Exosomes Educate Bone Marrow Mesenchymal Stromal Cells Toward a Protumorigenic Function. *Philadelphia, PA. 2015*
17. **Advances in Neuroblastoma Research Conference.** MYCN-dependent Expression of Sulfatase-2 Regulates Neuroblastoma Cell Survival. *Cologne, Germany. 2014*

18. **Annual Poster Session, Children's Hospital Los Angeles.** MYCN-dependent Expression of Sulfatase-2 Regulates Neuroblastoma Cell Survival. *Los Angeles, CA.* 2014
19. **Annual Poster Session, Children's Hospital Los Angeles.** Bone Marrow-derived Stromal Cells Contribute to a Pro-tumorigenic Inflammatory Microenvironment that Promotes Drug Resistance. *Los Angeles, CA.* 2014
20. **AACR Annual Meeting.** Bone Marrow-derived Stromal Cells Contribute to a Pro-tumorigenic Inflammatory Microenvironment that Promotes Drug Resistance. *San Diego, CA.* 2014
21. **AACR Annual Meeting.** MYCN-dependent Expression of Sulfatase-2 Regulates Neuroblastoma Cell Survival. *San Diego, CA.* 2014
22. **AACR Pediatric Cancer at the Crossroads: Translating Discovery Into Improved Outcomes.** MYCN-dependent Expression of Sulfatase-2 Regulates Neuroblastoma Cell Survival. *San Diego, CA.* 2013
23. **Asia Pacific Forum of Andrology.** Alterations of Anandamide Metabolism in Fertile and Infertile Human Sperm. *Nanjing, China.* 2009

PEER-REVIEWED PUBLICATIONS

1. Chioccioli M, Magruder S, McDonough J, Nouws J, Gonzalez D, **Borriello L**, Traub B, Ye X, Hendry C, Entenberg D, Krishnaswamy S, Kaminski N, Sauler M. Spatiotemporal coordination of stem cell behavior following alveolar injury. *BioRxiv.* doi: <https://doi.org/10.1101/2022.10.28.514255>. *Under Revision in Cell.*
2. **Borriello L**, Coste A, Traub B, Sharma V, Karagiannis GS, Yu L, Wang Y, Ye X, Duran C, Chen X, Friedman M, Sosa MS, Sun D, Dalla E, Singh Deepak, Oktay M, Aguirre-Ghiso J*, Condeelis JS*, Entenberg D*. Primary Tumor Associated Macrophages Activate Programs of Invasion and Dormancy in Disseminating Tumor Cells. *Nature Communications*, **2022** Feb 2;13(1):626. PMID: 35110548
3. **Borriello L**, Condeelis JS, Entenberg D, Oktay M. Breast Cancer Cell Re-Dissemination From Lung Metastases - a Mechanism for Enhancing Metastatic Burden. *Journal of Clinical Medicine*, **2021**. 27;10(11):2340. PMID: 34071839.
4. **Borriello L**, Traub B, Oktay M, Entenberg D. A Permanent Window for Investigating Cancer Metastasis to the Lung. *Jove*, **2021**. Jul 1;(173). doi: 10.3791/62761. PMID: 34279505
5. Duran C, **Borriello L**, Karagiannis G, Entenberg D, Oktay M, Condeelis JS. Targeting Tie2 in the tumor microenvironment: from angiogenesis to dissemination. *Cancers*, **2021**. Nov 16;13(22):5730.
6. Sharma V, Tang B, Wang Y, Karagiannis G, Xue E, Entenberg D, **Borriello L**, Coste A, Duran C, Eddy R, Kim G, Ye X, Jones J, Grunblatt E, Agi N, Roy S, Bandyopadhyaya G, Adler E, Surve C, Esposito D, Goswami S, Guo W, Condeelis JS, Wakefield L, Oktay M. Live Imaging of Breast Tumors Shows Macrophage-Dependent Induction and TMEM-Mediated Enrichment of Cancer Stem Cells during Metastatic Dissemination. *Nature Communications*, **2021**. Dec 15;12(1):7300
7. **Borriello L***, Karagiannis GS, Duran C, Coste A, Oktay M, Entenberg D* and Condeelis JS*. The Role of the Tumor Microenvironment in Tumor Cell Intravasation and Dissemination. **Corresponding authors – European Journal of Cell Biology*, **2020**. 99(6):151098. PMID: 32800278
8. Sanchez LR, **Borriello L**, Entenberg D, Oktay M, Condeelis JS, Karagiannis G. The Emerging Roles of Macrophages in Cancer Metastasis and Response to Chemotherapy. *Journal of Leukocyte Biology*, **2019**. 106(2):259-274. PMID: 30720887
9. Beadnell T, **Borriello L**, Christenson J, Fornetti J, Guldner I, Hanna A, Kyjacova L, Marinak-Whately K, de Melo Martins PC, Rotinen M, Te Boekhorst V, Cox TR. Meeting report: Metastasis Research Society (MRS)

17th Biennial Conference and Associated Young Investigator Satellite Meeting (YISM) on Cancer Metastasis. ***Clinical and Experimental Metastasis*, 2019.** 36(2):119-137. PMID: 30673912

10. Karagiannis GS, Pastoriza J, **Borriello L**, Jafari R, Coste A, Condeelis JS, Oktay M, Entenberg D. Assessing TMEM Doorway-Mediated Vascular Permeability Associated with Cancer Cell Dissemination, using Intravital Imaging and Fixed Tissue Analysis. ***JoVE*, 2019.** 26(148). PMID: 31305525
11. Zijlstra A, Von Lersner A, Yu D, **Borriello L**, Oudin M, Kang Y, Sahai E, Fingleton B, Stein U, Cox T, Price J, Kato Y, Welm A, Aguirre-Ghiso A. The Importance of Developing Therapies Targeting the Biological Spectrum of Metastatic Disease. ***Clinical and Experimental Metastasis*, 2019.** 36(4):305-309. PMID: 31102066.
12. Liu W, Lepelletier Y, Montes M, **Borriello L**, Jarray R, Grepin R, Leforban B, Loukaci A, Benhida R, Hermine O, Dufour S, Pages G, Garbay C, Raynaud F, Hadj-Slimane R, Demange L. NRPa-308, a New Neuropilin-1 Antagonist, Exerts in Vitro Anti-Angiogenic and Anti-Proliferative Effects and in Vivo Anti-Cancer Effects in a Mouse Xenograft Model. ***Cancer Letters*, 2018.** 1;414:88-98. PMID: 29111348.
13. Entenberg D, Voiculescu S, Guo P, **Borriello L**, Wang Y, Karagiannis GS, Jones J, Baccay F, Oktay M, Condeelis J. A Permanent Window for the Murine Lung Enables High-Resolution Imaging of Cancer Metastasis. ***Nature Methods*, 2018.** 15(1):73-80. PMID: 29176592.
14. **Borriello L**, Nakata R, Shear MA, Fernandez E, Seeger R, Malvar J, Blavier L, Shimada H, Asgharzadeh S, Seeger R and DeClerck YA. Cancer-Associated Fibroblasts Share the Characteristics and Protumorigenic Activity of Mesenchymal Stromal Cells. ***Cancer Research*, 2017.** 15;77(18):5142-5157. PMID: 28687621.
15. Bankaitis K, **Borriello L**, Cox T, Lynch C, Zijlstra A, Guzvic M, Fingleton B, Anderson R, Neman J. Meeting Report: Metastasis Research Society-Chinese Tumor Metastasis Society Joint Conference on Metastasis. ***Clinical and Experimental Metastasis*, 2017.** 34(3-4):203-213. PMID: 28260197
16. Hadjidaniel M, Muthugounder S, Hung L, Shirinbak S, Chan R, Nakata R, **Borriello L**, Sheard M, Iwakura H, Akamizu T, Shimada H, Sposto R, DeClerck YA, Asgharzadeh S. Tumor Associated Macrophages Promote Tumor Growth Independent of IL6 in Murine Model of Neuroblastoma. ***Oncotarget*, 2017.** 16;8(53):91516-91529. PMID: 29207662.
17. Lifshitz V, Priceman S, Li W, Cherryholmes G, Lee H, Makovski-Silverstein A, **Borriello L**, DeClerck Y, Yu H. Sphingosine-1-Phosphate Receptor-1 Promotes Environment-Mediated and Acquired Chemoresistance. ***Molecular Cancer Therapy*, 2017.** 16(11):2516-2527. PMID: 28716816.
18. **Borriello L**, Seeger RC, Asgharzadeh S, DeClerck YA. More Than the Genes, the Tumor Microenvironment in Neuroblastoma. ***Cancer Letters*, 2015.** S0304-3835(15)00693. PMID: 26597947.
19. Liu W, **Borriello L**, Leforban B, Hadj-Slimane Reda, Garbay C, Raynaud F, Lepelletier Y, Demange L. New Peptides Structurally-related to VEGF-A165 Exon 7 and 8 Encoded Domains Antagonize its Binding to NRP-1 and VEGF-R1. ***International Journal of Peptide Research and Therapeutics*, 2015.** 21, 117–124.
20. Jarray R*, Pavon S*, **Borriello L**, Allain B, Lopez N, Bianco S, Liu W, Biard D, Demange L, Hermine O, Garbay C, Raynaud F, Lepelletier Y. Disruption of Phactr-1 Pathway Triggers Pro-inflammatory and Pro-atherogenic Factors: New Insights in Atherosclerosis Development. ***Biochimie*, 2015.** 118:151-61. PMID: 26362351
21. **Borriello L** and DeClerck Yves. Tumor Microenvironment and Therapeutic Resistance Process. ***Medecine Sciences*, 2014.** 30(4):445-51. PMID: 24801042.

22. **Borriello L**, Montès M, Lepelletier Y, Leforban B, Liu WQ, Demange L, Delhomme B, Pavoni S, Jarray R, Boucher JL, Dufour S, Hermine O, Garbay C, Hadj-Slimane R, Raynaud F. Structure-based Discovery of a Small Non-peptidic Neuropilins Antagonist Exerting In Vitro and In Vivo Anti-tumor Activity in Breast Cancer Model. **Cancer Letters**, 2014. 349(2):120-7. PMID: 24752068
23. Solari V, **Borriello L**, Turcatel G, Shimada H, Sposto R, Fernandez GE, Asgharzadeh S, Yates EA, Turnbull JE, DeClerck YA. MYCN-Dependent Expression of Sulfatase-2 Regulates Neuroblastoma Cell Survival. **Cancer Research**, 2014.1;74(21):5999-6009. PMID: 2516401
24. Liu WQ, Megale V, **Borriello L**, Leforban B, Montès M, Goldwaser E, Gresh N, Piquemal JP, Hadj- Slimane R, Hermine O, Garbay C, Raynaud F, Lepelletier Y, Demange L. Synthesis and Structure-activity Relationship of Non-peptidic Antagonists of Neuropilin-1 Receptor. **Bioorganic & Medicinal Chemistry Letters**, 2014. 24(17):4254-9. PMID: 25091928
25. Lewis SE, Paro R, **Borriello L**, Simon L, Robinson L, Dincer Z, Riedel G, Battista N, Maccarrone M. Long Term of HU-210 Adversely Affects Spermatogenesis in Rats by Modulating the Endocannabinoid System. **International Journal of Andrology**, 2012. 35(5):731-40. PMID: 22435752
26. Allain B*, Jarray R*, **Borriello L***, Leforban B, Dufour S, Liu WQ, Pamonsinlapatham P, Bianco S, Larghero J, Hadj-Slimane R, Garbay C, Raynaud F, Lepelletier Y. Neuropilin-1 Regulates a New VEGF-induced Gene, Phactr-1, which Controls Tubulogenesis and Modulates Lamellipodial Dynamics in Human Endothelial Cells. **Cell Signaling**, 2012. 24(1):214-23. PMID: 21939755. ***First Author Equal Contribution**
27. Jarray R*, Allain B*, **Borriello L**, Biard D, Loukaci A, Larghero J, Hadj-Slimane R, Garbay C, Lepelletier Y, Raynaud F. Depletion of the Novel Protein PHACTR-1 from Human Endothelial Cells Abolishes Tube Formation and Induces Cell Death Receptor Apoptosis. **Biochimie**, 2011. 93(10):1668-75. PMID: 21798305

Complete List of Published Work: <http://www.ncbi.nlm.nih.gov/pubmed/?term=borriello+>

RESEARCH FINDING DISSEMINATION THROUGH MEDIA APPEARANCES

Nature Communications, behind the paper:

<https://cancercommunity.nature.com/posts/primary-tumor-associated-macrophages-activate-programs-of-invasion-and-dormancy-in-disseminating-tumor-cells>

Albert Einstein College of Medicine:

<https://www.einsteinmed.edu/research-briefs/2728/understanding-why-metastasis-succeeds/>

Albert Einstein College of Medicine:

<https://einstein.pure.elsevier.com/en/publications/primary-tumor-associated-macrophages-activate-programs-of-invasio>

Tigerlily Foundation:

Tigerlily Foundation MY LIFE Blog: Preserving Fertility in Women Undergoing Chemotherapy (mylife-tigerlilyfoundation.blogspot.com)

SCIENTIFIC KNOWLEDGE DISSEMINATION TO THE COMMUNITY & GENERAL PUBLIC

I believe that researchers have an ethical obligation to ensure that research findings are disseminated to the research community, as well as shared with the public. The propagation of scientific knowledge is important for explaining the frontiers of knowledge, establishing new collaborations, keeping cancer patients up-to-date with the advancements of cancer research, and growing awareness of the importance of funding for cancer research. I am highly committed to this, and have contributed to the dissemination of scientific knowledge through (i) multiple academic services since 2013, (ii) organizing quarterly webinars/workshops for young investigators on scientific topics and career development on behalf of the Metastasis Research Society (MRS), (iii) participating in forum discussions with metastatic breast cancer patients, (iv) writing short communications for cancer patients (**Article number 11**), and (v) contributing to meeting reports of MRS Conferences (**Articles number 9 and 15**).