
Panagiotis Mistriotis, PhD

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EDUCATION

- **Ph.D. in Chemical and Biological Engineering** (2016)
SUNY at Buffalo (UB), Thesis advisor: Stelios Andreadis
- **MSc in Human Biology** (2010)
University of Copenhagen (UCPH), Thesis advisor: Stelios Andreadis and Jens Nielsen
- **Diploma in Chemical Engineering** (2007)
National Technical University of Athens (NTUA), Thesis advisor: Bernhard Michalke and Maria Petropoulou

PROFESSIONAL EXPERIENCE

- **Assistant Professor** January 2020-
Chemical Engineering, Auburn University
- **Postdoctoral Fellow** March 2016 – December 2019
Institute for NanoBioTechnology, Johns Hopkins University
- **Graduate Research Assistant** December 2008 – February 2016
Bioengineering laboratory, UB
- **Undergraduate Research Assistant** October 2006 – August 2007
Biotechnology lab, NTUA, and G.P. Livanos and M. Simou Laboratories, Evangelismos Hospital, Greece
- **Undergraduate Research Assistant** March 2005 – August 2005
National Research Center for Environmental and Health (GSF), Munich, Germany

ACADEMIC& PROFESSIONAL HONORS

- **Outstanding Graduate Mentor Award**, Auburn University, 2023
- **Junior Research Award**, SGCOE, Auburn University, 2023
- **Ginn Faculty Achievement Fellow**, Auburn University, 2022
- **R35 Outstanding Investigator Award**, National Institute of Health, 2022
- **Career Development Award**, American Heart Association, 2022
- **Early Career Grant recipient**, National Blood Foundation, 2021
- **Postdoctoral Fellowship**, American Heart Association, 2018
- **Best Poster Presentation award** (shared with Dr. E. Wisniewski) at the 12th annual Nano-Symposium, Johns Hopkins University, 2018, Awarded paper: "Spatial regulation of RhoA dictates the migration mechanisms of dorsoventrally polarized cells in confinement."
- **Graduate student and Postdoctoral Fellow Research and Education Award**, Chemical and Biomolecular Engineering, Johns Hopkins University, 2017
- **Keynote Speaker**, 17th UB Chemical and Biological Engineering symposium, 2014
- **Best Poster Presentation Award** at the CBE Department Graduate Research Symposium, UB, 2013, awarded paper: "Fabrication of highly vasoreactive and robust tissue-engineered vascular media using doxycycline treatment: implications for vascular tissue engineering."

- **Thomaidio Award** for undergraduate research, NTUA, 2007

PROFESSIONAL ACTIVITIES

1) LEADERSHIP POSITIONS IN PROFESSIONAL SOCIETIES

- Theme Chair, " Cell and Tissue Engineering", theme, area 15D/E, AIChE, 2021-present

2) SESSIONS ORGANIZED/CHAIRIED AT PROFESSIONAL MEETINGS

- Co-chair, "Mechanical Cues and Cell Behavior", session, AIChE meeting, November, 2022
- Co-chair: "Engineering in Aging and Aging-related Diseases", AIChE meeting, November, 2022
- Co-organizer, " Engineering the Immune Response ", session, AIChE meeting, November, 2022
- Co-organizer, "Mechanical Cues and Cell Behavior", session, AIChE meeting, November, 2022
- Co-organizer, " Engineering 3D Tissues to Model Disease and Development ", session, AIChE meeting, November, 2022
- Co-organizer, "Engineering in Aging and Aging-related Diseases", AIChE meeting, November, 2022
- Co-organizer, " Stem Cells and Tissue Engineering", AIChE meeting, November, 2022
- Co-chair, "Mechanical Cues and Cell Behavior", session, AIChE meeting, November, 2021
- Co-chair: "Engineering in aging and aging-related diseases", AIChE meeting, November, 2021
- Co-chair, "Stem Cell Bioengineering", session, AIChE meeting, Fall 2020
- Co-organizer, Cancer Systems Biology Consortium/Physical Sciences Oncology Network (CSBC/PS-ON) Junior Investigator (JI) Meeting (NCI-NIH), 2016

3) PEER-REVIEW OF JOURNAL ARTICLES

- *Science Advances, Bioengineering & Translational Medicine, Scientific Reports, Annals of Biomedical Engineering, Cancers, Stem Cells and Translational Medicine, Tissue Engineering and Regenerative Medicine, International Journal of Molecular Sciences, Cellular and Molecular Bioengineering, Molecular Cancer Research, Cells*

4) PEER-REVIEW OF RESEARCH PROPOSALS

- National Science Foundation, EBMS panel, 2023
- American Heart Association, 2022
- Biomedical Research Foundation of Northwest Louisiana, 2016

5) OTHER PROFESSIONAL SERVICE ACTIVITIES

- Associate Editor: Innovation and Emerging Technologies, 2022-present
- Associate Editor: Frontiers in Chemical engineering, 2022-present
- Topic Editor: Cancers, 2021-present
- Reviewer of abstracts, AIChE annual meeting, 2020- present
- Reviewer of abstracts, BMES annual meeting, 2020-present

6) PROFESSIONAL SOCIETY MEMBERSHIPS

- American Institute of Chemical Engineers
- Biomedical Engineering Society
- American Heart Association
- American Association of Blood Banks

UNIVERSITY, SCHOOL OF ENGINEERING AND DEPARTMENT SERVICE

- Chair, Graduate Student Recruiting Committee, Chemical Engineering, 2022
- Vice-Chair, Graduate Student Recruiting Committee, Chemical Engineering, 2022

- Member, Graduate Student Recruiting, Annual AIChE Meeting, Phoenix, AZ, November, 2022
- Judge, Auburn Research Student Symposium, 2022, 2023
- ASEE Summer School, Colorado, 2022
- Host of a networking session, Preparing Future Faculty workshop, Auburn University, 2021, 2022
- Judge, Three Minute Thesis Preliminaries, Auburn University, 2021
- Member, Graduate Student Recruiting, Annual AIChE Meeting, Boston, MA, November, 2021
- Member, Graduate Student Recruiting Committee, Chemical Engineering, 2020-2022
- Co-organizer, Assistant Professors Roundtable Series, School of Engineering, 2020-2021
- Judge Finish in Five competition, 2020

1) Member in **Ph.D** committees:

<i>Student Name</i>	<i>Degree</i>	<i>Department</i>	<i>Thesis Advisor</i>
Yuxin Cai	Ph.D.	Materials Engineering	Pengyu Chen
Sayak Chakravarti	Ph.D.	College of Pharmacy	Amit Mitra
Justin Harvell	Ph.D. (prelim)	Chemical Engineering	Elizabeth Lipke
Austin Evers	Ph.D. (prelim)	Chemical Engineering	Symone Alexander
Mohammadjafar Hashemi	Ph.D. (prelim)	Chemical Engineering	Elizabeth Lipke
Antara Mazumder	Ph.D. (prelim)	Chemical Engineering	Bryan Beckingham

2) Member in **MS** committees:

<i>Student Name</i>	<i>Degree</i>	<i>Department</i>	<i>Thesis Advisor</i>
Mayra Paez Arias	MS	Chemical Engineering	Elizabeth Lipke

COMMUNITY SERVICE

- Judge, Science and Engineering Fair, 2022
- Co-organizer (Chemical Engineering), Senior Tigers Camp, School of Engineering, summer, 2022
- Co-organizer (Chemical Engineering), Engineering Expo for High School Students, School of Engineering, summer, 2021
- Co-organizer (Chemical Engineering), Tiger Virtual Engineering Camp for High School Students, School of Engineering, summer, 2020

RESEARCH FUNDING

1. **Sponsor:** National Institute of Health
Project Title: Administrative Supplement for the Purchase of a Confocal Microscope
Amount: \$250,000
PI(s): Panagiotis Mistriotis
Period: 07/01/2023-06/31/2024
2. **Sponsor:** National Institute of Health
Project Title: Cell mechanoresponses in physiologically relevant microenvironments
Amount: \$1,865,315
PI(s): Panagiotis Mistriotis
Period: 08/10/2022-06/31/2027
3. **Sponsor:** American Heart Association
Project Title: The contributions of cytokinesis proteins to smooth muscle cell function in health and disease
Amount: \$231,000
PI(s): Panagiotis Mistriotis
Period: 04/01/2022-03/31/2025
4. **Sponsor:** Breast Cancer Research Foundation of Alabama

Project Title: Integrating bioengineering tools, genome-wide genetic screens and in vivo models to discover new determinants of triple negative breast cancer cell invasion

Amount: \$69,414

PI(s): Panagiotis Mistriotis (70%), Robert Rusty Arnold (30%)

Period: 12/15/2021-12/14/2022

5. **Sponsor:** National Blood Foundation

Project Title: Eliminating senescent bone marrow-derived mesenchymal stem cells using microfluidics

Amount: \$74,868

PI(s): Panagiotis Mistriotis

Period: 07/01/2021-06/30/2023

6. **Sponsor:** Office of the Vice President for Research and Economic Development, Auburn University

Project Title: Bioengineering tools to uncover the mechanisms of human mesenchymal stem cell migration

Amount: \$50,000

PI(s): Panagiotis Mistriotis

Period: 07/01/2021-06/30/2023

TEACHING

- Courses Taught:
 - **CHEN 7100/7100-D01** Graduate Transport I (graduate; 3 credit hours; Auburn University), Fall 2023; (25 students)
 - **CHEN 3620** Transport II (undergraduate; 3 credit hours; Auburn University), Spring 2022 (37 students)
 - **CHEN 5970/6970** Cell and Tissue Engineering (undergraduate/graduate/online; 3 credit hours; Auburn University), Spring 2022 (31 students)
 - **CHEN 2610** Transport I (undergraduate; 3 credit hours; Auburn University), Spring 2020 (65 students), Spring 2021 (55 students), Fall 2021 (24 students), Fall 2022 (24 students)
 - **EN.500.111** Bioengineering Principles of Cell Locomotion (Johns Hopkins University; undergraduate; 1 credit hour; 9 students) Fall 2018
- Teaching assistant: **CE327 & CE328** Chemical Engineering Lab 1 &2 (SUNY at Buffalo)

STUDENTS MENTORED

Ph.D. Candidates:

1. Farnaz Hemmati, Chemical Engineering; Ph.D. Expected in 2025
2. Farshad Amiri, Chemical Engineering; Ph.D. Expected in 2025
3. Ayuba Akinpelu, Chemical Engineering; Ph.D. Expected in 2026
4. Dylan Bowen, Chemical Engineering; Ph.D. Expected in 2028
5. Ravi Sureshbhai Vaghasiya, Chemical Engineering; Ph.D. Expected in 2028

Undergraduate Students:

1. Rachel Wamble, 2022-present
2. Kristyn Edmondson, 2022
3. Collins Keith, 2021-present
4. Collin McMurray, 2021-2022
5. Anya McDaniel, 2021-present
6. Chae Jun, 2020-2021
7. Jiha Yoon, 2020-2021

STUDENT AWARDS

- Undergraduate Research Fellowship to **Anya McDaniel**, Auburn University, 2023
- 3rd place award to **Farnaz Hemmati**, 2022 Graduate Engineering Research Showcase, Auburn University, 2022
- Undergraduate Research Fellowship to **Collins Keith**, Auburn University, 2022
- Best Oral Presentation to **Farshad Amiri**, Auburn Research Symposium, Auburn University, 2022,
- Auburn Local Section American Chemical Society Travel Award to **Farnaz Hemmati**, November 2021

PUBLICATIONS

1. F. Hemmati, A. Akinpelu, J. Song, F. Amiri, A. McDaniel, C. McMurray, A. Afthinos, S.T. Andreadis., Vinicia C. Biancardi, S. Gerecht, **P. Mistriotis**, *Downregulation of YAP activity restricts P53 hyperactivation to promote cell survival in confinement. Adv Sci (Weinh)*. 2023.e2302228.
2. T. M. Ghosh, S. Mazumder, J. Davis, J. Yadav, A. Akinpelu, A. Alnaim, H. Kumar, R. Waliagha, A.E. Church Bird, S. Rais-Bahrami, R.C. Bird, P. Mistriotis, A. Mishra, C.C. Yates, A.K. Mitra, R.D. Arnold, Metronomic Administration of Topotecan Alone and in Combination with Docetaxel Inhibits Epithelial–mesenchymal Transition in Aggressive Variant Prostate Cancers, *Cancer Res Commun*. 2023, (7):1286-1311
3. R. A. Law, A. Kiepas, H. E. Desta, E. P. Ipinia, M. Parlani, S. J. Lee, C. L. Yankaskas, R. Zhao, **P. Mistriotis**, N. Wang, Z. Gu, P. Kalab, P. Friedl, B. A. Camley. K. Konstantopoulos, *Cytokinesis machinery promotes cell dissociation from collectively migrating strands in confinement. Sci Adv*, 2023. 9(2)
4. K. Bera, A. Kiepas, I. Godet, Y. Li, P. Mehta, B. Ifemembi, C.D. Paul, A. Sen, S.A. Serra, K. Stoletov, J. Tao, G. Shatkin, S.J. Lee, Y. Zhang, A. Boen, **P. Mistriotis**, D.M. Gilkes, J.D. Lewis, C.M. Fan, A.P. Feinberg, M.A. Valverde, S.X. Sun, K. Konstantopoulos, *Extracellular fluid viscosity enhances cell migration and cancer dissemination. Nature*. 2022.611(7935):365-73.
5. Y. Zhang, Y. Li Y, K.N. Thompson, K. Stoletov, Q. Yuan, K. Bera, S.J. Lee, R. Zhao, A. Kiepas, Y. Wang, P. Mistriotis, S.A. Serra, J.D. Lewis, M.A. Valverde, S.S. Martin, S.X. Sun, K. Konstantopoulos K, *Polarized NHE1 and SWELL1 regulate migration direction, efficiency and metastasis. Nat Commun*. 2022.13(1):6128
6. A. Afthinos, K. Bera, J. Chen, A. Ozcelikkale, A. Amitrano, M.I. Choudhury, R. Huang, P. Pachidis, **P. Mistriotis**, Y. Chen, K. Konstantopoulos, *Migration and 3D Traction Force Measurements inside Compliant Microchannels. Nano Lett*. 2022.22(18):7318-27.
7. S. Mazumder, T. Mitra Ghosh, U.K. Mukherjee, S. Chakravarti, F. Amiri, R.S. Waliagha, F. Hemmati, **P. Mistriotis**, S. Ahmed, I. Elhussin, A.B. Salam, W. Dean-Colomb, C. Yates, R.D. Arnold, A.K. Mitra, *Integrating Pharmacogenomics Data-Driven Computational Drug Prediction with Single-Cell RNAseq to Demonstrate the Efficacy of a NAMPT Inhibitor against Aggressive, Taxane-Resistant, and Stem-like Cells in Lethal Prostate Cancer. Cancers*. 2022.14(23).
8. M. I. Choudhury, Y. Li, **P. Mistriotis**, A. C. N. Vasconcelos, E. E. Dixon, J. Yang, M. Benson, D. Maity, R. Walker, L. Martin, F. Koroma, F. Qian, K. Konstantopoulos, O. M. Woodward, S. X. Sun, *Kidney Epithelial Cells are Active Mechano-biological Fluid Pumps. Nat Commun*, 2022. 13(23)17
9. C.L. Yankaskas, K. Bera, K. Stoletov, S.A. Serra, J. Carrillo-Garcia, S. Tuntithavornwat, **P. Mistriotis**, J.D. Lewis, M.A. Valverde, and K. Konstantopoulos, *The fluid shear stress sensor TRPM7 regulates tumor cell intravasation. Sci Adv*, 2021. 7(28).
10. S. Parida, S. Wu, S. Siddharth, G. Wang, N. Muniraj, A. Nagalingam, C. Hum, **P. Mistriotis**, H. Hao, C.C. Talbot, Jr., K. Konstantopoulos, K.L. Gabrielson, C.L. Sears, and D. Sharma, *A Procarcinogenic Colon Microbe Promotes Breast Tumorigenesis and Metastatic Progression and Concomitantly Activates Notch and beta-Catenin Axes. Cancer Discov*, 2021. 11(5): p. 1138-1157.
11. E.O. Wisniewski[#], **P. Mistriotis^{#,*}**, K. Bera, R.A. Law, J. Zhang, M. Nikolic, M. Weiger, M. Parlani, S. Tuntithavornwat, A. Afthinos, R. Zhao, D. Wirtz, P. Kalab, G. Scarcelli, P. Friedl, and K. Konstantopoulos^{*}, *Dorsoventral polarity directs cell responses to migration track geometries. Sci Adv*, 2020. 6(31): p. eaba6505. (# designates co-first authors, * designates co-corresponding authors)
12. R.S. Kenchappa, **P. Mistriotis**, E. Wisniewski, S. Bhattacharya, T. Kulkarni, R. West, A. Luu, M. Conlon, E. Heimsath, J.F. Crish, H.S. Picariello, A. Dovas, N. Zarco, M. Lara-Velazquez, A. Quinones-Hinojosa, J.A. Hammer, D. Mukhopadhyay, R.E. Cheney, K. Konstantopoulos, P. Canoll, and S.S. Rosenfeld, *Myosin 10 Regulates Invasion, Mitosis, and Metabolic Signaling in Glioblastoma. iScience*, 2020. 23(12): p. 101802.

13. **P. Mistriotis**[#], E.O. Wisniewski[#], K. Bera, J. Keys, Y. Li, S. Tuntithavornwat, R.A. Law, N.A. Perez-Gonzalez, E. Erdogmus, Y. Zhang, R. Zhao, S.X. Sun, P. Kalab, J. Lammerding, and K. Konstantopoulos, *Confinement hinders motility by inducing RhoA-mediated nuclear influx, volume expansion, and blebbing*. **J Cell Biol**, 2019. 218: p. 4093-4111 (# designates co-first authors)
14. R. Zhao, A. Afthinos, T. Zhu, **P. Mistriotis**, Y. Li, S.A. Serra, Y. Zhang, C.L. Yankaskas, S. He, M.A. Valverde, S.X. Sun, and K. Konstantopoulos, *Cell sensing and decision-making in confinement: The role of TRPM7 in a tug of war between hydraulic pressure and cross-sectional area*. **Sci Adv**, 2019. 5(7): p. eaaw7243.
15. C.L. Yankaskas, K.N. Thompson, C.D. Paul, M.I. Vitolo, **P. Mistriotis**, A. Mahendra, V.K. Bajpai, D.J. Shea, K.M. Manto, A.C. Chai, N. Varadarajan, A. Kontrogianni-Konstantopoulos, S.S. Martin, and K. Konstantopoulos, *A microfluidic assay for the quantification of the metastatic propensity of breast cancer specimens*. **Nat Biomed Eng**, 2019. 3(6): p. 452-465.
16. B.S. Wong, D.J. Shea, **P. Mistriotis**, S. Tuntithavornwat, R.A. Law, J.M. Bieber, L. Zheng, and K. Konstantopoulos, *A Direct Podocalyxin-Dynamin-2 Interaction Regulates Cytoskeletal Dynamics to Promote Migration and Metastasis in Pancreatic Cancer Cells*. **Cancer Res**, 2019. 79(11): p. 2878-2891.
17. N. Rong[#], **P. Mistriotis**[#], X. Wang, G. Tseropoulos, N. Rajabian, Y. Zhang, J. Wang, S. Liu, and S.T. Andreadis, *Restoring extracellular matrix synthesis in senescent stem cells*. **FASEB J**, 2019: p. fj201900377R. (designates co-first authorship)
18. A. Shahini[#], **P. Mistriotis**[#], M. Asmani, R. Zhao, and S.T. Andreadis, *NANOG Restores Contractility of Mesenchymal Stem Cell-Based Senescent Microtissues*. **Tissue Eng Part A**, 2017. 23(11-12): p. 535-545. (# designates co-first authors)
19. S. Sengupta, A. Nagalingam, N. Muniraj, M.Y. Bonner, **P. Mistriotis**, A. Afthinos, P. Kuppusamy, D. Lanoue, S. Cho, P. Korangath, M. Shriver, A. Begum, V.F. Merino, C.Y. Huang, J.L. Arbiser, W. Matsui, B. Gyorffy, K. Konstantopoulos, S. Sukumar, P.A. Marignani, N.K. Saxena, and D. Sharma, *Activation of tumor suppressor LKB1 by honokiol abrogates cancer stem-like phenotype in breast cancer via inhibition of oncogenic Stat3*. **Oncogene**, 2017. 36(41): p. 5709-5721.
20. C.D. Paul, **P. Mistriotis**, and K. Konstantopoulos, *Cancer cell motility: lessons from migration in confined spaces*. **Nat Rev Cancer**, 2017. 17(2): p. 131-140.
21. **P. Mistriotis**, V.K. Bajpai, X. Wang, N. Rong, A. Shahini, M. Asmani, M.S. Liang, J. Wang, P. Lei, S. Liu, R. Zhao, and S.T. Andreadis, *NANOG Reverses the Myogenic Differentiation Potential of Senescent Stem Cells by Restoring ACTIN Filamentous Organization and SRF-Dependent Gene Expression*. **Stem Cells**, 2017. 35(1): p. 207-221.
22. **P. Mistriotis** and S.T. Andreadis, *Vascular aging: Molecular mechanisms and potential treatments for vascular rejuvenation*. **Ageing Res Rev**, 2017. 37: p. 94-116.
23. R.M. Padmashali[#], **P. Mistriotis**[#], M.S. Liang[#], and S.T. Andreadis, *Lentiviral arrays for live-cell dynamic monitoring of gene and pathway activity during stem cell differentiation*. **Mol Ther**, 2014. 22(11): p. 1971-82. (# designates co-first authors).
24. C.K. Chen, C.H. Jones, **P. Mistriotis**, Y. Yu, X. Ma, A. Ravikrishnan, M. Jiang, S.T. Andreadis, B.A. Pfeifer, and C. Cheng, *Poly(ethylene glycol)-block-cationic polylactide nanocomplexes of differing charge density for gene delivery*. **Biomaterials**, 2013. 34(37): p. 9688-99.
25. **P. Mistriotis** and S.T. Andreadis, *Hair follicle: a novel source of multipotent stem cells for tissue engineering and regenerative medicine*. **Tissue Eng Part B Rev**, 2013. 19(4): p. 265-78.
26. J. Han, **P. Mistriotis**, P. Lei, D. Wang, S. Liu, and S.T. Andreadis, *Nanog reverses the effects of organismal aging on mesenchymal stem cell proliferation and myogenic differentiation potential*. **Stem Cells**, 2012. 30(12): p. 2746-59.
27. V.K. Bajpai, **P. Mistriotis**, Y.H. Loh, G.Q. Daley, and S.T. Andreadis, *Functional vascular smooth muscle cells derived from human induced pluripotent stem cells via mesenchymal stem cell intermediates*. **Cardiovasc Res**, 2012. 96(3): p. 391-400.
28. V.K. Bajpai[#], **P. Mistriotis**[#], and S.T. Andreadis, *Clonal multipotency and effect of long-term in vitro expansion on differentiation potential of human hair follicle derived mesenchymal stem cells*. **Stem Cell Res**, 2012. 8(1): p. 74-84. (# designates co-first authors).
29. B. Michalke, A. Berthele, **P. Mistriotis**, M. Ochsenkuhn-Petropoulou, and S. Halbach, *Manganese speciation in human cerebrospinal fluid using CZE coupled to inductively coupled plasma MS*. **Electrophoresis**, 2007. 28(9): p. 1380-6.

30. B. Michalke, A. Berthele, **P. Mistrionis**, M. Ochsenkuhn-Petropoulou, and S. Halbach, *Manganese species from human serum, cerebrospinal fluid analyzed by size exclusion chromatography-, capillary electrophoresis coupled to inductively coupled plasma mass spectrometry*. **J Trace Elem Med Biol**, 2007. 21 Suppl 1: p. 4-9.
31. B. Michalke, S. Halbach, A. Berthele, **P. Mistrionis**, and M. Ochsenkuhn - Petropoulou, *Size Characterization of Manganese Species from Human Serum and Cerebrospinal Fluid using Size Exclusion Chromatography coupled to Inductively Coupled Plasma Mass Spectrometry*. **JAAS**, 2007, 22, 267-272.

BOOK CHAPTERS

1. B.S. Wong, **P. Mistrionis** and K. Konstantopoulos, *Exposing cell-itory confinement: Understanding the mechanisms of confined single cell migration*. *Biomechanics in Oncology*, (2018), Springer, 137-157.
2. **P. Mistrionis** and S.T. Andreadis, *Hair follicle: A novel source of stem cells for cell and gene therapy*. *Emerging Trends in Cell and Gene Therapy*, (2013), Springer, 97-118.

INVITED RESEARCH PRESENTATIONS

1. **P. Mistrionis**, *Cell mechanoresponses in confinement and their implications for cancer metastasis*, Department of Anatomy, Physiology, and Pharmacology, Auburn University, Alabama, USA, December, 2022
2. **P. Mistrionis**, *Cell mechanoresponses in confinement and their implications for cancer metastasis*, Department of Drug Discovery and Development, Auburn University, Alabama, USA, November, 2022
3. **P. Mistrionis**, *Nuclear Deformation Compromises Cell Survival in Confinement*, Society of Engineering Science (SES) Annual Technical Meeting, College Station October 2022
4. **P. Mistrionis**, *The Nucleus: A Key Regulator of Cancer Cell Plasticity and Migration in Confinement*. Engineering advanced 3D (in vitro) models for solid cancer studies, University College London, UK, Virtual Workshop, July, 2021
5. **P. Mistrionis**, *Uncovering the mechanisms of cell locomotion using bioinspired devices*. Tissue Engineering Seminar Series, NC State University, Virtual Seminar, May, 2021
6. **P. Mistrionis**, "The nucleus during confined cell migration: a barrier or a sensor?", Chemical Engineering, Ohio University, Athens, Ohio, USA, November, 2020
7. **P. Mistrionis**, "Feeling the Squeeze: How Cancer Cells Sense and Respond to Different Physical Cues", Chemical Engineering, Auburn University, Alabama, USA, February, 2018
8. **P. Mistrionis**, "Molecular and Bioengineering Strategies for Improving the Differentiation of Adult Mesenchymal Stem Cells", Biomedical Research Foundation, Academy of Athens, Athens, Greece, December, 2013

CONFERENCE PRESENTATIONS

1. F. Amiri, F. Hemmati, and **P. Mistrionis**, *A Microfluidic Approach for the Isolation of a Highly Migratory Presenescent Stem Cell Subpopulation*, Annual AIChE Meeting, Phoenix, AZ, November, 2022. (Oral Presentation)
2. F. Hemmati, A. Akinpelu, F. Amiri, and **P. Mistrionis**, *P53 activity governs cell life and death in confinement*, Annual BMES Meeting, Orlando, FL, October, 2022. (Oral Presentation)
3. F. Amiri, F. Hemmati, and **P. Mistrionis**, *A Microfluidic Enrichment of Presenescent Stem Cells Based on Differences in the Migratory Potential*, Annual BMES Meeting, Orlando, FL, October, 2022. (Poster Presentation)
4. F. Hemmati, A. Akinpelu, F. Amiri, and **P. Mistrionis**, *An Innovative Microfluidic Platform Technology to Study the Long-term Cell Responses to Confinement*, Annual BMES Meeting, Orlando, FL, October, 2021. (Oral Presentation)
5. F. Hemmati, A. Akinpelu, F. Amiri, and **P. Mistrionis**, *A Novel Microfluidic Device for Investigating the Long-term Effects of Confinement on Cell Phenotype and Function*, Annual AIChE Meeting, Boston, MA, November, 2021. (Oral Presentation)

6. **P. Mistriotis**, Mechanotransduction during confined cell migration, Annual AIChE Meeting, Boston, MA, November, 2021. (Oral Presentation)
7. Y. Zhang, R. Zhao, **P. Mistriotis**, K. Bera, and K. Konstantopoulos, *Polarized Ion Channels Regulate Migration Direction and Efficiency in Confinement*, Annual AIChE Meeting, Boston, MA, November, 2021. (Oral Presentation)
8. K. Bera, C. L. Yankaskas, K. Stoletov, S. Serra, J. Carrillo-Garcia, S. Tuntithavornwat, **P. Mistriotis**, J. Lewis, M. Valverde and K. Konstantopoulos, *The Fluid Shear Stress Sensor TRPM7 Regulates Cell Intravasation*, Annual AIChE Meeting, Boston, MA, November, 2021. (Oral Presentation)
9. S. Chakravarti, S. Mazumder, F. Hemmati, F. Amiri, T.M. Ghosh, U.K. Mukherjee, **P. Mistriotis**, T. Moore, R. Arnold, C. Yates, and A.K. Mitra, Deciphering the functional basis of synergy between taxanes and TAK715 – a novel repurposed drug candidate in treatment-refractory aggressive prostate cancer. American Association for Cancer Research (AACR) Annual Meeting, Virtual, April, 2021. (Poster Presentation)
10. S. Chakravarti, S. Mazumder, F. Hemmati, F. Amiri, U.K. Mukherjee, T.M. Ghosh, L. Chen, F. Li, **P. Mistriotis**, R. Arnold, and A.K. Mitra, *Combining in silico prediction with single-cell transcriptomics and pre-clinical validation to re-purpose TAK715 as a novel secondary drug against treatment-refractory aggressive prostate cancer*. Pharmacogenomics Research Network (PGRN) Annual Meeting, Zoom, October 2020. (Poster Presentation)
11. **P. Mistriotis**, E.O. Wisniewski, K. Bera, J. Keys, S. Tuntithavornwat, R.A. Law, Y. Zhang, R. Zhao, P. Kalab, J. Lammerding, and K. Konstantopoulos, *Confinement Induces Nuclear Volume Expansion and Blebbing by Triggering RhoA-Mediated Nuclear Influx*. Philly Motility, Philadelphia, PA, 2019. (Oral Presentation)
12. **P. Mistriotis**, E. Wisniewski, R. Law, K. Bera, S. Tuntithavornwat, N. Perez, A. Afthinos, R. Zhao, E. Erdogmus, C. Wain, S. Sun, P. Kalab, and K. Konstantopoulos, *Feeling the Squeeze: How Motile Cells Respond to Different Types of Compression*. Annual Meeting of the Biomedical Engineering Society (BMES), Atlanta, GA, October, 2018. (Oral Presentation)
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24. V.K. Bajpai, **P. Mistriotis**, Z. Chamanzar, R. Carpenter, and S.T. Andreadis, *Biofabrication of Robust Tissue Engineered Vascular Media Employing Doxycycline Treatment*. Annual Meeting of the American Institute of Chemical Engineers (AIChE), Atlanta, GA, November, 2014. (Oral Presentation)
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27. R. Padmashali, M. Liang, **P. Mistriotis**, and S.T. Andreadis, *Lentiviral Arrays for High-Throughput, Live Monitoring Gene and Pathway Activation during Stem Cell Differentiation*. Microtechnologies & High Throughput Screening, 4th International Conference on Stem Cell Engineering, (co-sponsored by SBE and ISSCR), Coronado, CA, March, 2014. (Oral Presentation)
28. **P. Mistriotis**, and S.T. Andreadis, *Nanog Reverses the Effects of Senescence on Proliferation and Myogenic Differentiation of Human Mesenchymal Stem Cells*. 4th International Conference on Stem Cell Engineering, (co-sponsored by SBE and ISSCR), Coronado, CA, March, 2014 (poster and rapid fire presentation).
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