

Curriculum vitae

Date Prepared: April 25, 2024
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Education

Year	Degree	Field of Study	Institution
2001	BSE	Computer and Electrical Engineering	University of Michigan
2002	MSE	Biomedical Engineering	University of Michigan
2008	MD	Medicine	Boston University School of Medicine

Postdoctoral and Other Training

Years	Titles	Specialty/Discipline	Institution
2008-2010	Resident	Internal Medicine	Massachusetts General Hospital
2010-2014	Fellow	Gastroenterology	University of Pennsylvania
2014-2019	Instructor	Gastroenterology	University of Pennsylvania
2014-2019	Research Fellow	Gastroenterology	University of Pennsylvania

Current Licensure and Certification

Licensure

2010-2019 Commonwealth of Pennsylvania
2019-present Texas

Board and Other Certification

2013 American Board of Internal Medicine Certification in Internal Medicine
2014 American Board of Internal Medicine Certification in Gastroenterology

Honors and Awards

Year	Name of Honor/Award	Awarding Organization
2001	Magna Cum Laude	University of Michigan-College of Engineering

2002	Biomedical Engineering Department Research Grant for academic excellence	University of Michigan-College of Biomedical Engineering
2003	Medical Student Research Program Research Fellowship	Boston University School of Medicine
2005	Association of Pathology Chairs Honor Society	Association of Pathology Chairs
2005-2006	Joseph Collins Foundation Medical Scholarship	Boston University School of Medicine
2006-2007 2007	HHMI-NIH Medical Research Scholar Outstanding Abstract-NAIMS retreat	Howard Hughes Medical Institute National Institute of Arthritis and Musculoskeletal and Skin Diseases
2008	Magna Cum Laude	Boston University School of Medicine
2008	Elected member of the Alpha Omega Alpha Medical Society	Alpha Omega Alpha Medical Society
2008-2010	ABIM Physician-Scientist Pathway	Department of Medicine, Massachusetts General Hospital
2013	Frank Brooks Excellence in Research Award	University of Pennsylvania
2018-2019	Caroline Craig Augustyn & Damian Augustyn Award in Digestive Cancer	American Gastroenterological Association (AGA)
2019	Disease Oriented Research Scholar (DOCS) Award	UT Southwestern Medical Center
2019	CPRIT Scholar	UT Southwestern Medical Center
2023-2028	NIH Director's New Innovation Award	UT Southwestern Medical Center

Faculty Academic Appointments

Years	Academic Title	Department	Academic Institution
2019-Present	Assistant Professor	Internal Medicine and Childrens Research Institute	UT Southwestern
2023-Present	Physician	Internal Medicine and Gastroenterology	VA North Texas Healthcare System

Appointments at Hospitals/Affiliated Institutions

Past

Year(s)	Position Title	Department/Division	Institution
2014-2019	Instructor	Internal Medicine/Gastroenterology	University of Pennsylvania

Current

Year(s)	Position Title	Department/Division	Institution
2019-Present	Assistant Professor	Internal Medicine/Digestive and Liver Diseases	UT Southwestern Medical Center

2023-Present	Physician	Internal Medicine and Gastroenterology	VA North Texas Healthcare System
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Other Professional Positions *None*

Major Administrative/Leadership Positions *None*

Committee Service

2022- Racial Equity, Diversity, and Inclusion (REDI) committee

Professional Societies

Dates	Society Name, member
2010-2019	American Association for the Study of Liver Diseases
2010-Present	American Gastroenterological Association

Dates	Committee service (<i>Member, unless noted otherwise</i>)
2017-2018	Chair for Abstract session on Cancer Stem Cells and Circulating Tumor Cells for American Gastroenterology Association and Digestive Diseases Week
2010-Present	American Society of Gastrointestinal Endoscopy
2014-Present	American Association of Cancer Research
2015-Present	American Pancreas Association
2015-Present	Abstract Reviewer for the Annual Meeting of the American Pancreatic Association

Grant Review Activities

Year(s)	Name of Review Committee	Organization
2019	European Research Council-Advanced Grants	ERC
2020	Simmons Comprehensive Cancer Center Translational Pilot program funding	UTSW

Editorial Activities

Year(s)	Journal Name
<u>Editor/Associate Editor:</u> <i>None</i>	
<u>Editorial Board:</u> <i>None</i>	
<u>Ad Hoc Reviewer:</u> Gastroenterology, Cancer Biology and Therapy, Cancer Investigation, BMC Medical genomics, Cancer Research, Science Advances, NPJprecision oncology, JCI	

Grant Support

Present

- 1) CPRIT - RR190029
Mechanisms of clonal evolution and metastatic progression in pancreatic cancer

- Role: Principal Investigator
08/2019-07/2024 Total direct costs \$2,000,000
- 2) CPRIT – RR220606
Developing a Novel Optogenetic Recombinase System to Study and Target Metastatic Cancer
Role: Principal Investigator
08/2022-07/2024 Total direct costs \$250,000
- 3) NIH/NCI/OD- 1DP2CA290967-01
Title: Optogenetic engineering of tumor topography in native tissue environments
Role: Principal Investigator
09/2023-09/2028 Total direct costs \$1,500,000
- 4) UTSW- Pilot Synergy Grant
Title: Lateral transfer of extrachromosomal DNA elements in the tumor immune microenvironment
Role: Co-Principal Investigator (Dr. Maddapati and Dr. Ly)
12/2023-12/2024 Total direct costs \$100,000
- Past
-
- 5) UT Southwestern – Oriented Clinical Scholars (DOCS) award
Mechanisms underlying metastatic heterogeneity in pancreatic cancer
Role: Principal Investigator
08/2019-07/2023 Total direct costs \$1,000,000
- 6) NIH / NIDDK - 1K08DK109292
The role of progenitor cells in pancreatic acinar renewal and pre-malignant progression
Role: Principal Investigator
03/01/2017-02/28/2021 Total direct costs \$431,400
- 7) American Gastroenterological Association (AGA)- Caroline Craig Augustyn & Damian Augustyn Award in Digestive Cancer
Delineating mechanisms of Myc-dependent metastatic progression in pancreatic cancer
Role: Principal Investigator
07/01/2018-06/30/2019 Total direct costs \$40,000
- 8) NIH/NIDDK- Center for Molecular Studies in Digestive and Liver diseases Pilot Project (P30) grant- 4-P30-DK-050306-20
clonal evolution and metastasis in pancreas cancer
Role: Principal Investigator
06/30/2014-06/20/2017 Total direct costs \$50,000
- 9) NIH/NCI Institutional NIH K12 award- Paul Calabresi Career Development Award
Origin of clonal heterogeneity in metastatic pancreatic cancer
Role: Principal Investigator Total direct costs \$341,000
07/2014 – 07/2016

Clinical Trials Activities

Present

STU 072018-037	Molecular profile analysis of pretreated pancreatic, colorectal, and anal cancers (PI: Aguilera, Co-investigator: Maddipati)
STU 2020-0118	EA2185: Comparing the clinical impact of pancreatic cyst surveillance programs (PI: Mansour, Co-investigator: Maddipati)
158986-2	Histopathologic and Molecular Genetic Features of Pancreatobiliary and Hepatobiliary Cancers and their Association with patient outcomes (PI: Wachsmann, Co-investigator: Maddipati), VA North Texas Health Care System
STU 2021-2019	Identifying Novel Heritable Risk Factors for the Development of Pancreatic Cancer (Co-PI- Maddipati)

Teaching and Training Activities

Year(s)	Activity
<u>Medical and graduate school didactic and small group teaching</u>	
2017, 2018	<i>Gastroenterology and Pathophysiology course</i> , medical school curriculum, Small Group teaching sessions. University of Pennsylvania School of Medicine
2018	<i>Cellular and Molecular Biology (CMB) 701</i> , Graduate school preceptor, Tumor Microenvironment. University of Pennsylvania School of Medicine
<u>Dissertation committees</u>	
2021-	Natalie Phinney. Doctoral Program in Cancer Biology, UT Southwestern Medical Center
2022-	Julisa Gonzalez. Doctoral Program in Cancer Biology, UT Southwestern Medical Center
2022-	Valli Annamali. Doctoral Program in Cancer Biology, UT Southwestern Medical Center
2022-	Ria Mukerji. Doctoral Program in Cancer Biology, UT Southwestern Medical Center
2023-	Di Yang. Doctoral Program in Cancer Biology, UT Southwestern Medical Center
2023-	Xinrui Yang. Doctoral Program in Cancer Biology, UT Southwestern Medical Center
<u>Qualifying examination committees</u>	
2020	Andreas Chai. Genetics and Development Graduate Program, UT Southwestern Medical Center.
2022	Isabella Brown. Genetics and Development Graduate Program, UT Southwestern Medical Center.
2023	Di Yang. Cancer Biology Graduate program, UT Southwestern Medical Center
<u>Committees concerned with medical and graduate student education</u>	
2024	Graduate Student Admissions Committee member
<u>Graduate student rotations</u>	
2019	Karla Cano Hernandez

2020 Natalie Phinney
2020 Valli Annamalai
2021 Julisa Gonzalez
2021 Ria Mukherji
2022 Blake Schwettmann
2023 Tina Andoh
2024 Anthony Lopez

Undergraduate student rotations

2014-2016 Amine Sahmoud, University of Pennsylvania, Philadelphia, PA
2015-2018 Gajaan Sittambalam, University of Pennsylvania, Philadelphia, PA

Medical student rotations:

2022- Present Albert Kwan, MD MPH. University of South Alabama College of Medicine

Medical resident research rotations: None

Gastroenterology fellow research rotations: None

Graduate student trainees:

2015-2019 Robert J. Norgard, Ph.D. *Co-mentor*. Doctoral Program in Cellular and Molecular Biology, University of Pennsylvania Graduate School, Philadelphia, PA.
Current position: Research Scientist. Boehringer-Ingelheim, North Brunswick, NJ
2021- Valli Annamalai *Mentor*. Doctoral Program in Cancer Biology, University of UT Southwestern Medical Center, Dallas, Tx.

Postgraduate medical education (graduate & continuing medical education)

2014- *Inpatient teaching of Gastroenterology:* GI Fellows, Internal Medicine residents, and Medical Students, Gastroenterology Consult services at the University of Pennsylvania Hospital System, Philadelphia PA (2014-2019), and Clements University Hospital, Dallas, TX (2015-present)
2014- *Outpatient teaching of Gastroenterology:* GI Fellows and Internal Medicine residents, Gastroenterology Clinics at the University of Pennsylvania Hospital System, Philadelphia PA (2014-2019), and at UT Digestive and Liver Diseases Clinic, Dallas, TX (2019-present)
2014- *Endoscopy Training:* GI fellows and surgery residents, University of Pennsylvania Hospital System, Philadelphia PA (2014-2019), and at UT Digestive and Liver Diseases Clinic, Dallas, TX (2019-present), and Clements University Hospital, Dallas, TX (2015-present)

Postdoctoral trainees

2019- Taku Higashihara, M.D., Ph.D. Post-doctoral fellow
2020- Saurav Battacharya, Ph.D. Post-doctoral fellow

2020- Angad Kumar, Ph.D. Post-doctoral fellow
 2023- Fei Peng, MD Visiting research scientist

Committee Service

2023- HED committee Memeber

Invited Lectures

Year(s)	Title	Location
<u>International: None</u>		
<u>National</u>		
Nov, 2015	Pancreatic Cancer metastasis harbor evidence of polyclonality	American Pancreas Association, San Diego CA
Oct, 2016	Modeling Clonal Evolution in Pancreatic Cancer	American Pancreas Association, Boston MA
Jan, 2017	Clonal Evolution in pancreatic cancer: a colorful tale	Washington University, St. Louis MO
Jan, 2018	Delineating mechanisms of pancreatic tumor metastasis	Columbia University, New York, NY
April, 2018	The origins of metastasis in pancreatic cancer	Yale University, New Haven, CT
Sept, 2018	Mechanisms underlying clonal evolution and heterogeneity in pancreatic cancer	University of Michigan, Ann Arbor, MI
Mar, 2021	Drivers of Metastatic Heterogeneity	The Johns Hopkins School of Medicine, Baltimore, MD
Oct, 2022	Mechanisms driving tumor metastasis in pancreas cancer	Univeristy of Oklahoma Health Sciences Center, Oklahoma City, OK
<u>Regional/Local</u>		
Jun, 2015	Origins of clonal heterogeneity in metastatic pancreatic cancer	16th Annual NIH Center for Molecular Studies in Digestive and Liver Disease, Philadelphia, PA
Nov, 2015	Impact of tumor heterogeneity on metastatic progression in pancreatic cancer	Cell Press, Lablinks symposium, Philadelphia PA
Oct, 2018	Mechanisms of tumor metastasis	University of Texas Southwestern, Dallas, TX
Sept, 2019	Origins of Metastatic Heterogeneity	Hamon Center Seminar Series University of Texas Southwestern, Dallas, TX
Oct, 2019	Mechanisms of Metastatic Heterogeneity in Pancreatic cancer	Children Research Institute University of Texas Southwestern, Dallas, TX
Feb, 2020	Stratagies for Pancreatic cancer prevention	Pancreatic Patient Summit Universty of Texas Southwestern, Dallas, Tx

Jul, 2020	Identifying Drivers of Tumor Metastasis	Hamon Center Seminar Series University of Texas Southwestern, Dallas, TX
Oct 2020	MYC controls metastatic burden in pancreatic cancer	Cellular Networks & Cancer Program- Spotlight on MYC University of Texas Southwestern, Dallas, TX
Jun 2021	Drivers of Metastatic Heterogeneity in Pancreatic Cancer	DC program Retreat- University of Texas Southwestern, Dallas, TX
Dec 2021	Insights into the Biology of Metastatic Pancreatic Cancer	Pediatric Hematology-Oncology Grand Rounds- University of Texas Southwestern, Dallas, TX
Dec 2021	Developing new recombineering tools to study cellular heterogeneity in vivo	Children's Research Institute- University of Texas Southwestern, Dallas, TX
Oct, 2022	Mechanisms of tumor metastasis	MDAnderson Cancer Center, Houston, TX
Aug, 2023	Targeting tumor heterogeneity	University of Texas Southwestern, Dallas, TX
Aug, 2023	Mechanisms of tumor metastasis	University of Texas Southwestern, Dallas, TX

Technological and Other Scientific Innovations: *None*

Service to the Community: *None*

Bibliography

Peer-Reviewed Publications

Original Research Articles

1. Vu, T.Q., **Maddipati, R.**, Blute, T.A., Nehilla, B.J., Nusblat, L., Desai, T.A.: Peptide-conjugated quantum dots activate neuronal receptors and initiate downstream signaling of neurite growth. Nano letters 5(4): 603-7, Apr 2005.
2. Simon, A., Park, H., **Maddipati, R.**, Lobito, A.A., Bulua, A.C., Jackson, A.J., Chae, J.J., Ettinger, R., de Koning, H.D., Cruz, A.C., Kastner, D.L., Komarow, H., Siegel, R.M.: Concerted action of wild-type and mutant TNF receptors enhances inflammation in TNF receptor 1-associated periodic fever syndrome. Proceedings of the National Academy of Sciences of the United States of America 107(21): 9801-6, May 2010. PMID: PMC2906866
3. Bulua, A.C., Simon, A., **Maddipati, R.**, Pelletier, M., Park, H., Kim, K., Sack, M.N., Kastner, D.L., Siegel, R.M.: Mitochondrial reactive oxygen species promote production of proinflammatory cytokines and are elevated in TNFR1-associated periodic syndrome

- (TRAPS). *The Journal of experimental medicine* 208(3): 519-33, Mar 2011. PMID: PMC3058571
4. Yanger, K., Zong, Y., Maggs, L.R., Shapira, S.N., **Maddipati, R.**, Aiello N.M., Thung, S.N., Wells, R.G., Greenbaum, L.E., Stanger, B.Z.: Robust cellular reprogramming occurs spontaneously during liver regeneration. *Genes & development* 27(7): 719-24, Apr 2013. PMID: PMC3639413
 5. Gao, T., Zhou, D., Yang, C., Singh, T., Penzo-Méndez, A., **Maddipati, R.**, Tzatsos, A., Bardeesy, N., Avruch, J., Stanger, B.Z: Hippo signaling regulates differentiation and maintenance in the exocrine pancreas. *Gastroenterology* 144(7): 1543-53, 1553.e1, Jun 2013. PMID: PMC3665616
 6. **Maddipati, R.** and Stanger B.Z: Pancreatic Cancer Metastases Harbor Evidence of Polyclonality. *Cancer Discovery* 5(10): 1086-97, Oct 2015. PMID: 26209539
 7. Aiello, N.M*, **Maddipati, R***, Norgard, R*, Balli, D., Li, J., Yaun, S., Yamazoe, T., Black, T., Sahnoud, A., Furth, E.E., Bar-Sagi, D., Stanger, B.Z.: Tumor Subtype influences epithelial plasticity and mode of cell migration. *Developmental Cell* 45: 681-695, June 2018. Notes: *Co-first authors. PMID: PMC6014628
 8. Reichert M, Bakir B, Moreira L, Pitarresi JR, Feldmann K, Simon L, Suzuki K, **Maddipati R**, Rhim AD, Schlitter AM, Kriegsmann M, Weichert W, Wirth M, Schuck K, Schneider 4, Saur D, Reynolds AB, Klein-Szanto AJ, Pehlivanoglu B, Memis B, Adsay NV, Rustgi AK.: Regulation of Epithelial Plasticity Determines Metastatic Organotropism in Pancreatic Cancer. *Developmental Cell* 45(6): 696-711, June 2018. PMID: PMC6011231
 9. Raman P*†, **Maddipati R***†, Lin KH, Tozeren A. Pancreatic cancer survival analysis defines a signature that predicts outcome. *PlosOne*. 2018;13(8):e0201751. Notes: *Co-first authors, †Co-corresponding authors.
 10. Norgard RJ, Pitarresi JR, **Maddipati R**, Aiello-Couzo NM, Balli D, Li J, Yamazoe T, Wengyn MD, Millstein ID, Folkert IW, Rosario-Berrios DN, Kim IK, Bassett JB, Payne R, Berry CT, Feng X, Sun K, Cioffi M, Chakraborty P, Jolly MK, Gutkind JS, Lyden D, Freedman BD, Foskett JK, Rustgi AK, Stanger BZ. Calcium signaling induces a partial EMT. *EMBO Rep*. 2021 Jul 29:e51872. PMID: 34324787
 11. Wörmann SM, Zhang A, Thege FI, Cowan RW, Rupani DN, Wang R, Manning SL, Gates C, Wu W, Levin-Klein R, Rajapakshe KI, Yu M, Multani AS, Kang Y, Taniguchi CM, Schlacher K, Bellin M, Katz MHG, Kim M, Fleming JB, Gallinger S, **Maddipati R**, Harris RS, Notta F, Ross SR, Maitra A, and Rhim AD. 2021. APOBEC3A Drives Deaminase Domain Independent Chromosomal Instability to Promote Pancreatic Cancer Metastasis. *Nat Cancer* 2021 PMID: 35121902.
 12. **Maddipati R***†, Norgard R*, Baslan T*, Rathi K, Zhang A, Saeid A, Higashihara T, Wu F, Kumar A, Annamalai V, Bhattacharya S, Raman R, Adkisson CA, Pitarresi JR, Wengyn MD, Yamazoe T, Li J, Balli D, LaRiviere MJ, Ngo T, Folkert IW, Millstein ID, Bermeo J, Carpenter EL, McAuliffe JC, Oktay MH, Brekken R, Lowe S, Iacobuzio-Donahue C, Notta F, Stanger BZ†. Myc levels regulate metastatic heterogeneity in pancreatic cancer. *Cancer Discov* 2022 PMID: 34551968 Notes: *Co-first authors, †Co-corresponding authors.
 13. Huang H, Wang Z, Zhang Y, Pradhan RN, Ganguly D, Chandra R, Murimwa G, Wright S, Gu X, **Maddipati R**, Müller S, Turley SJ, Brekken RA. Mesothelial cell-derived antigen-presenting cancer-associated fibroblasts induce expansion of regulatory T cells in pancreatic cancer. *Cancer Cell*. 2022 Jun 13;40(6):656-673.e7. doi: 10.1016/j.ccell.2022.04.011. Epub 2022 May 5. PMID: 35523176; PMID: PMC9197998.
 14. Elamir AM, Karalis JD, Sanford NN, Polanco PM, Folkert MR, Porembka MR, Kazmi SA, **Maddipati R**, Zeh HJ, Timmerman RD, Zhang S, Ligorio M, Beg MS, Aguilera TA.

Ablative Radiation Therapy in Oligometastatic Pancreatic Cancer to Delay Polyprogression, Limit Chemotherapy, and Improve Outcomes. *Int J Radiat Oncol Biol Phys.* 2022 Jul 24:S0360-3016(22)00738-6 PMID: 35896145

Reviews, Chapters, Monographs and Editorials

1. **Maddipati, R:** Circulating tumor cells, how close are we? *AGA perspectives* March 2016.
2. **Maddipati, R** and Katz, J.P: KLF4 Initiates Acinar Cell Reprogramming and Is Essential for the Early Stages of Pancreatic Carcinogenesis. *Cancer cell* 29(3): 247-8, Mar 2016.
3. Ganguly D, Chandra R, Karalis J, Teke M, Aguilera T, **Maddipati R**, Wachsmann MB, Ghersi D, Siravegna G, Zeh HJ 3rd, Brekken R, Ting DT, Ligorio M. Cancer-Associated Fibroblasts: Versatile Players in the Tumor Microenvironment. *Cancers (Basel)*. 2020 Sep 17;12(9):2652. doi: 10.3390/cancers12092652. PMID: 32957515; PMCID: PMC7564346.

Books/Textbooks

1. **Maddipati, R.,** Stanger, B.Z.: Liver and Pancreas: Mechanisms of Development and Size Control. *Stem Cells: From Basic Research to Therapy*. Calegari, F., and Waskow, C. P (eds.). Science publishers, 1, 2014.

Case Reports: *None*

Letters to the Editor: *None*

Proceedings of Meetings: *None*

Clinical Practice Guidelines: *None*