

SlgN affiliated publications by Giulia ADRIANI

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2025

Tiberi G, Scagliotti A, Curcio C, Candiello E, Villegas PAD, Brugiapaglia S, Mucciolo G, Roux C, Castellano G, Curto R, Arigoni M, Calogero RA, Barutello G, Bolli N, Papotti MG, Adriani G, Novelli F, Cappello P. The absence of IL17A favours cytotoxic cell function and improves antigen-specific immunotherapies in pancreatic adenocarcinoma. *Clin Transl Med*. 2025 Aug;15(8):e70442.

Lopez-Sanchez A, Chédotal H, Muthuramalingam RPK, Thomas M, Yau JNN, Sahoo PR, Policar C, Batteux F, Medjoubi K, Somogyi A, Adriani G, Nicco C, Coriat R, Pastorin G, Bertrand HC. A Targeted Redox-Active Dual-Action Pt(IV)-Mn(II) Prodrug Displays Enhanced In Vivo Anticancer Activity. *Adv Healthc Mater*. 2025 Jul 6:e2501847.

Vasudevan J, Vijayakumar R, Reales-Calderon JA, Lam MSY, Ow JR, Aw J, Tan D, Tan AT, Bertolotti A, Adriani G, Pavesi A. In vitro integration of a functional vasculature to model endothelial regulation of chemotherapy and T-cell immunotherapy in liver cancer. *Biomaterials*. 2025 Feb 9;320:123175.

2024

Yau JNN, Yempala T, Muthuramalingam RPK, Giustarini G, Teng G, Ang WH, Gibson D, Adriani G, Pastorin G. Fluorescence-Guided Spatial Drug Screening in 3D Colorectal Cancer Spheroids. *Adv Healthc Mater*. 2024 May 22:e2400203.

Adriani G, Pavesi A. The OrganiX microfluidic system to recreate the complex tumour microenvironment. *Nat Rev Immunol*. 2024 Feb 27.

2023

Adriani G, Cappello P, Lovisa S. Editorial: Preclinical models and emerging technologies to study the effects of the tumor microenvironment on cancer heterogeneity and drug resistance. *Front Oncol*. 2023 Sep 28;13:1289756.

Gautam N, Wojciech L, Yap J, Chua YL, Ding EM, Sim DC, Tan AS, Ahl PJ, Prasad M, Tung DW, Connolly JE, Adriani G, Brzostek J, Gascoigne NR. Themis controls T cell activation, effector functions, and metabolism of peripheral CD8⁺ T cells. *Life Sci Alliance*. 2023 Sep 22;6(12):e202302156.

Giustarini G, Teng G, Pavesi A, Adriani G. Characterization of 3D heterocellular spheroids of pancreatic ductal adenocarcinoma for the study of cell interactions in the tumor immune microenvironment. *Front Oncol*. 2023 Jul 14;13:1156769.

Yau JNN, Adriani G. Three-dimensional heterotypic colorectal cancer spheroid models for evaluation of drug response. *Front Oncol*. 2023 Jul 4;13:1148930.

Lam MSY, Reales-Calderon JA, Ow JR, Aw JY, Tan D, Vijayakumar R, Ceccarello E, Tabaglio T, Lim YT, Chien WL, Lai F, Tanoto AT, Chen Q, Sobota RM, Adriani G, Bertolotti A, Guccione E, Pavesi A. G9a/GLP inhibition during ex vivo lymphocyte expansion increases in vivo cytotoxicity of engineered T cells against hepatocellular carcinoma. *Nat Commun*. 2023 Feb 2;14(1):563.

2022

Lee SWL, Rogosic R, Venturi C, Raimondi MT, Pavesi A, Adriani G. A human Neurovascular Unit On-a-Chip. *Methods Mol Biol*. 2022;2373:107-119.

2021

Mollica H, Teo YJ, Tan ASM, Tan DZM, Decuzzi P, Pavesi A, Adriani G. A 3D pancreatic tumor model to study T cell infiltration. *Biomater Sci*. 2021 Nov 9;9(22):7420-7431.

Lam M, Reales-Calderon JA, Ow JR, Adriani G, Pavesi A. In vitro 3D liver tumor microenvironment models for immune cell therapy optimization. *APL Bioeng*. 2021 Oct 4;5(4):041502.

Giustarini G, Pavesi A, Adriani G. Nanoparticle-Based Therapies for Turning Cold Tumors Hot: How to Treat an Immunosuppressive Tumor Microenvironment. *Front Bioeng Biotechnol*. 2021 Jun 2;9:689245.

2020

Lee SWL, Seager RJ, Litvak F, Spill F, Sieow JL, Leong PH, Kumar D, Tan ASM, Wong SC, Adriani G, Zaman MH, Kamm RD. Integrated in silico and 3D in vitro model of macrophage migration in response to physical and chemical factors in the tumor microenvironment. *Integr Biol (Camb)*. 2020 Apr 20;12(4):90-108

Lee SWL, Campisi M, Osaki T, Possenti L, Mattu C, Adriani G, Kamm RD, Chiono V. Modeling Nanocarrier Transport across a 3D In Vitro Human Blood-Brain-Barrier Microvasculature. *Adv Healthc Mater*. 2020 Apr;9(7):e1901486.

Lee SWL, Adriani G, Kamm RD, Gillrie MR. Models for Monocytic Cells in the Tumor Microenvironment. *Adv Exp Med Biol*. 2020;1224:87-115.

2019

Lee SWL, Paoletti C, Campisi M, Osaki T, Adriani G, Kamm RD, Mattu C, Chiono V. MicroRNA delivery through nanoparticles. *J Control Release*. 2019 Nov 10;313:80-95.

Miermont A, Lee SWL, Adriani G, Kamm RD. Quantitative screening of the effects of hyper-osmotic stress on cancer cells cultured in 2- or 3-dimensional settings. *Sci Rep*. 2019 Sep 24;9(1):13782.

Mercurio A, Sharples L, Corbo F, Franchini C, Vacca A, Catalano A, Carocci A, Kamm RD, Pavesi A, Adriani G. Phthalimide Derivative Shows Anti-angiogenic Activity in a 3D Microfluidic Model and No Teratogenicity in Zebrafish Embryos. *Front Pharmacol*. 2019 Apr 17;10:349.

2018

Bersini S, Miermont A, Pavesi A, Kamm RD, Thiery JP, Moretti M, Adriani G. A combined microfluidic-transcriptomic approach to characterize the extravasation potential of cancer cells. *Oncotarget*. 2018 Nov 16;9(90):36110-36125.

Yuan Y, Adriani G, Xu Y, Chan YT. Highly fluorescent, monolithic semiconductor nanorod clusters for ultrasensitive biodetection. *Chem Commun (Camb)*. 2018 Oct 4;54(80):11352-11355.

Lee SWL, Adriani G, Ceccarello E, Pavesi A, Tan AT, Bertoletti A, Kamm RD, Wong SC. Characterizing the Role of Monocytes in T Cell Cancer Immunotherapy Using a 3D Microfluidic Model. *Front Immunol*. 2018 Mar 6;9:416.

Adriani G, Pavesi A, Kamm RD. Studying TCR T cell anti-tumor activity in a microfluidic intrahepatic tumor model. *Methods Cell Biol*. 2018;146:199-214.

2017

Pavesi A, Tan AT, Koh S, Chia A, Colombo M, Antonecchia E, Miccolis C, Ceccarello E, Adriani G, Raimondi MT, Kamm RD, Bertoletti A. A 3D microfluidic model for preclinical evaluation of TCR-engineered T cells against solid tumors. *JCI Insight*. 2017 Jun 15;2(12).

Ho YT, Adriani G, Beyer S, Nhan P-T, Kamm RD, Kah JCY. A Facile Method to Probe the Vascular Permeability of Nanoparticles in Nanomedicine Applications. *Sci Rep*. 2017 Mar 31;7(1):707.

Adriani G, Ma D, Pavesi A, Kamm RD, Goh ELK. A 3D neurovascular microfluidic model consisting of neurons, astrocytes and cerebral endothelial cells as a blood-brain barrier. *Lab Chip*. 2017 Jan 31;17(3):448-459.

Mercurio A, Adriani G, Catalano A, et al. A Mini-Review on Thalidomide: Chemistry, Mechanisms of Action, Therapeutic Potential and Anti-Angiogenic Properties in Multiple Myeloma. *Curr Med Chem*. 2017;24(25):2736-2744.

2016

Adriani G, Pavesi A, Tan AT, Bertoletti A, Thiery JP, Kamm RD. Microfluidic models for adoptive cell-mediated cancer immunotherapies. *Drug Discov Today*. 2016 Sep;21(9):1472-1478.

Penny HL, Sieow JL, Adriani G, Yeap WH, Ee PSC, San Luis B, Lee B, Lee T, Mak SY, Ho YS, Ong CK, Huang RYJ, Ginhoux F, Rotzschke O, Kamm RD, Wong SC. Warburg metabolism in tumor-conditioned macrophages promotes metastasis in human pancreatic ductal adenocarcinoma. *Oncoimmunology*. 2016 Jun 21;5(8):e1191731.

Pavesi A, Adriani G, Tay A, Warkiani ME, Yeap WH, Wong SC, Roger D. Kamm RD. Engineering a 3D microfluidic culture platform for tumor-treating field application. *Sci Rep*. 2016 May 24;6:26584.

Adriani G, Bai J, Wong SC, Kamm RD, Thiery JP. M2a macrophages induce contact-dependent dispersion of carcinoma cell aggregates. *Macrophage*. 2016 May 3;3: e1222.

2015

Bi X, Adriani G, Xu Y, Chakraborty S, Pastorin G, Ho HK, Ang WH, Chan YT. Gene Detection in Complex Biological Media using Semiconductor Nanorods within an Integrated Microfluidic Device. *Anal Chem*. 2015 Oct 20;87(20):10292-8.

Bai J, Adriani G, Dang T-M, Tu TY, Penny HXL, Wong SC, Kamm RD, Thiery JP. Contact-dependent carcinoma aggregate dispersion by M2a macrophages via ICAM-1 and beta2 integrin interactions. *Oncotarget*. 2015 Sep 22;6(28):25295-307.

Pavesi A, Adriani G, Rasponi M, Zervantonakis IK, Fiore GB, Kamm RD. Controlled electromechanical cell stimulation on-a-chip. *Sci Rep*. 2015 Jul 2;5:11800.

2012

Adriani G, de Tullio MD, Ferrari M, Hussain F, Pascazio G, Liu X, Decuzzi P. The preferential targeting of the diseased microvasculature by disk-like particles. *Biomaterials*. 2012 Aug;33(22):5504-13.

van de Ven AL, Kim P, Haley O, Fakhoury JR, Adriani G, Schmulen J, Moloney P, Hussain F, Ferrari M, Liu X, Yun SH, Decuzzi P. Rapid tumortropic accumulation of systemically injected plateloid particles and their biodistribution. *J Control Release*. 2012 Feb 28;158(1):148-55.