

MEMORANDUM

TO: MEMBERS OF THE GOVERNING BOARD
 FROM: JONATHAN Y. THOMAS, CHAIR, AND ART TORRES, VICE CHAIR
 SUBJECT: Memo re. Appointments to the AAWG
 DATE: OCTOBER 19, 2021

As you know, Proposition 14 created the Treatments and Cures Accessibility and Affordability Working Group (AAWG) to recommend policies and programs to the Board to enhance access to, and the affordability of, treatments and cures arising from CIRMfunded research for California patients. The AAWG is compose of 17 members: seven members of the Board, including the Chair and Vice Chair, and 10 outside experts. Pursuant to Health & Safety Code section 125290.75, the Chair and Vice Chair of the Board are required to nominate members of the AAWG for approval by the Board. To date, the Board has appointed the following Board members to the AAWG: Dan Bernal, Allison Brashear, David Higgins, Adrianna Padilla, Al Rowlett.

In addition, the Board appointed:

- James DeBenedetti, the Director of Plan Management at Covered California, who fills the seat for an expert in California's public insurance program.
- Dana Dornsife, the founder of Lazerex Cancer Foundation, who fills the seat for representative from a philanthropic organization who has experience assisting patients with clinical trial access and affordability, or with access to, and the affordability of, innovative therapies.
- Dr. Dana Goldman, Interim Dean of the USC Sol Price School of Public Policy, who fills the seat for a health care economist, with experience in advising or negotiating with private insurers, government insurers, or corporate selfinsurance programs on coverage for innovative therapies or human trials, including experience in assisting hospitals and clinics in covering financial gaps in coverage of the direct and indirect costs of innovative therapies.
- Dr. Ann Boynton, Executive Director, Strategic Planning at the UC Davis Medical Center, who fills the seat for a representative from hospitals in California that are

participating in stem cell clinical trials or FDA approved stem cell or genetic therapy.

- Adrienne Shapiro, Patient Advocate for Sickle Cell Disease, who fills the seat for a representative from a patient advocacy organization who has technical expertise or experience in coverage, qualifications, and the process for reimbursement of innovative therapies.
- Ammar Qadan, Vice President and Global Head of Market Access Illumina Inc., who fills the seat for an expert or a highly knowledgeable individual with experience in federal therapy coverage, qualifications, and process for reimbursement, including, if possible, experience with the Centers for Medicare and Medicaid Services.

We now wish to nominate:

- Dr. Ted Goldstein, former Vice President and Chief Artificial Intelligence Officer at Anthem Blue Cross Blue Shield, who fills the seat for an individual with private sector experience in innovative therapy medical coverage terms, qualifications and the process for reimbursement.
- Dr. Maheswari Senthil, Chief, Division of Surgical Oncology at UC Irvine, who fills the seat for a representative from hospitals in California that are participating in stem cell clinical trials or FDA approved stem cell or genetic therapy.
- David Serrano Sewell, Chief Operating Officer at the Office of the Chief Medical Examiner, City and County of San Francisco, who fills the seat for a representative from patient advocacy organizations with experience in coverage, qualifications, and reimbursement of innovative therapies.
- Dr. Harlan Levine, President, Strategy and Business Ventures, City of Hope, who fills the seat for a patient navigator with training and experience helping patients obtain financial support from private insurers, public support or nonprofit support and helping patients obtain social service support

Their bios are attached.

Theodore C. Goldstein, Ph.D.

Summary of Qualifications:

- Bioinformatics expert in oncology of genomics and developmental (stem cell) pathways.
- Visionary technology leader adept at managing business change.
- Technical and business leader in Artificial Intelligence applied to therapies.
- Expert people manager and manager of managers and interfacing to board of directors and senior executive management.
- Published extensively on cancer genomics, numerous computer technologies and patents.

Medicine Healthcare accomplishments

Created a network cloud Health Operating System, an platform for helping clinicians and administrators identify optimal treatment for individual, cohorts and communities

TED talk: Cancer: Who lives? Who Dies? accumulated over 100K hits

Published NCI The Cancer Genome Atlas (TCGA), Prostate Cancer Foundation and Pediatric Cancer papers

Managed a national multi-year UCSF / NCI research and coordination program called the Oncology Model Forum program

Advanced TCGA and SU2C analysis working groups by bringing computer industry know-how to healthcare

Biomolecular Engineering and Bioinformatics Ph.D. 2013 Thesis: Tools For Extracting Actionable Medical Knowledge from Genomic Big Data. http://compbio.soe.ucsc.edu/theses/Theodore-Goldstein-PhD-2013.pdf

- \$1.2 million award co-principal investigator (with David Haussler) on California Kids Combatting Cancer award from the California Initiative to Advance Precision Medicine to repurpose drugs for pediatric cancer patients
- \$300K award co-principal investigator (with Charles Ryan) on Network Extensible clinical trials (NEXT) from Safeway / PCF Foundation
- \$1 Million / 3 year sub-award co-principal researcher (with Josh Stuart) on SU2C/PCF/AACR Stand Up 2 Cancer West Coast Castration Resistance Prostate Cancer Dream Team to investigate drug resistance, disease progression and to create MedBook <u>http://medbook.ucsc.edu</u>

Software and technology accomplishments

Transformed and reignited Apple's application community and created the tools for Intel Mac, iPhone and iPad by creating powerful tools for developers and end-users which have enabled Apple to become the most valuable company in the world.

- Revolutionized and unified smart card industry by creating Java Card, a platform with over a billion units deployed (95% market share) in bank cards, transportation cards, and GSM and secure Identifiatoin applications. *Awarded Sun Microsystems' President's award by Scott McNealy.*
- Launched three startups: Brodia.com (trusted secure reliable 24x7 application service provider for financial institutions), ParcPlace Systems (creator of Smalltalk, resulting in an IPO) and NanoBiz (trusted secure XML certificate infrastructure acquired by VeriSign).
- Currently bringing the techniques of advanced user centered design and massively scalable computing to bioinformatics, biomolecular engineering and health care informatics.

Positions:

Anthem Blue Cross Blue Shield Inc.

Vice President and Chief Artificial Intelligence Officer

- Created a new team to use insurance claims and EMR data for improving health care.
- Developed new 130 person world-wide team centered in Palo Alto California.
- Developed new platform for AI called HealthOS
- Advised business teams on how to use new advanced therapies including genomics, stem cells and gene therapy
- Led a team of clinicians and business leaders to understand bias in AI
- Oversaw insourcing of advanced Total Health Total You patient care platform

University of California San Francisco

Assistant Professor, Department of Medicine, Hematology / Oncology February 2018-Present Scientific Program Director, Bakar Computational Health Sciences Institute 2016 to Present

- Conduct deep learning translational research in brain, prostate, breast, lung and pediatric cancer
- Provide scientific leadership for the National Cancer Institute Oncology Models Forum
- Mentoring postdoctoral fellows and graduate students
- Developing a fidelity score for models of cancer •
- Bioinformatics member of UCSF Molecular Tumor Board

Dealin School of Engineering, UC Conto Cruz	
Baskin School of Engineering, UC Santa Cruz	2008 to prese
Adjunct Assistant Professor, Biomolecular Engineering	201
Principal Investigator / MedBook Director	2014 to prese
Graduate Student (Haussler/Stuart lab)	2008 to 20
Co-PI on California Kids Cancer Comparison, Governor of Calforni	a initiative to advance
Precision Medicine project to find treatments in N-of-1 trials for Ped	diatric Cancer

- Stand Up 2 Cancer / Prostate Cancer Foundation / American Association of Cancer Research Castration Resistant Prostate Cancer West Coast Dream Team
- Developed Differential Pathway Signature Correlation (DiPSC) method to identify relationships between outcomes based on high-throughput molecular signatures. DiPSC has been used by several TCGA data analysis groups.
- Laboratory rotations with Ribosome pioneer Harry Noller at UCSC, RNAi pioneer Greg Hannon at CSHL, Neurological-geneticist Chris Walsh at Harvard Medical School, Pyrosequencing pioneer Nader Pourmand at UCSC and Cancer pathway pioneer Josh Stuart at UCSC .
- NEXT Co-PI on Network Extensible Clinical Trial (with Charles Ryan, UCSF) using DIPSC.

Guttman Initiatives

Director of Research

- Consulted in the development of the Lifeguard Health Network continuous mobile monitoring network for chronic patient care.
- Advised on software engineering and go-to-market strategies

Theranos Inc.

Vice President of Software

- Hired the software and biomath team
- Warned board of directors

Apple, Inc.

Vice President of Development Technologies

Established Xcode, an Integrated Development Environment, the key tool for developing

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2016 to January 2019

ent 016 ent 013

2002 to 2007

Stealth-mode company

Briefly **2007**

2013 to present

January 2019 to July 2021

applications for the Mac; the tools and runtime of Mac OS X Jaguar, Panther, Tiger and Leopard and iOS (the operating system for iPad and iPhone)

- Transitioned Apple's developer community from the PowerPC to Intel processors
- Created the Automator and Dashcode applications that bring programming to end users
- Created Instruments, a performance and debugging tool for parallel systems.
- Increased in 2003, Apple's gcc compiler SPEC CPU2000 performance by 25% Integer and 35% FP using feedback directed optimization and other techniques
- Managed tool-related partnerships with Sun Microsystems, IBM, Intel and other companies.
- Architected Intel development tools strategy and successfully turned-around troubled tools department to fully meet and exceed goals. Restructured and redirected engineering teams for various obsolete products and technologies into successful collaborators on new products.
- Managed Mac OS X Apple New Product Process

Anthem, Inc.

Vice President of Business and Technology

Business development function with leadership role in R&D organization:

- Successfully negotiated a multi-million dollar deal with VeriSign that created a new line of business for managed security services for smart cards, tokens, and entitlement. Following the announcement, the stock price rose 92% over two weeks.
- Acquired Australian Internet authentication services company Authentic8 and fused development organizations across three continents.
- ActivCard provides the systems that provision smart cards for the entire U. S. Department of Defense and other critical government units. Prototyped National Identity cards.

Catalytic Consulting

Venture Capital Consulting Entrepreneur

- Launched Nanobiz Inc., a B2B startup doing XML PKI application servers, on business strategy resulting in successful acquisition by VeriSign.
- Evaluated investment opportunities for venture capital firms including The Valent Group, EarlyBird Capital, and Doll Capital Management.
- Created business and product plans for ActivCard, Inc. for smart card-oriented retail financial client application.

Brodia.com

Vice President of Engineering & CTO for Application Services Provider for Financial Institutions

- Developed the server side wallet and personal commerce portal for Citibank (original CitiWallet), and other banks including MBNA, CapitalOne, Providian, Wells Fargo, Chase, and Discover.
- Transformed Brodia from game infrastructure company to electronic commerce company
- Grew company to 140; built engineering staff from 5 to 85.
- Managed directors including platform development, application development, art department, content extraction and packaging, networking and systems, and operations.
- Created ECML the Electronic Commerce Modeling Language; a standard that includes Visa, MasterCard, Amex, Microsoft, IBM, Sun, Novell, Trintech and Brodia (see www.ecml.org)
- Co-developed business plan and Brodia's infomediary model.
- Developed web architecture and deployment plans for reliable 7x24 99.99% uptime service
- Filed numerous patents on electronic commerce and scalable web technology,
- Managed intellectual property strategy.
- Responsible for six patents, Brodia security model and Financial Institution due-diligence.

Sun Microsystems, Inc., Mountain View and Cupertino California

JavaSoft: Chief Java Commerce Officer (1995 to 1998)

1990 to 1998

- · Created and championed Java Card and all electronic commerce activities in JavaSoft
- Awarded the President's award by Scott McNealy

2000 to 2001

1998 to 2000

2001

- Awarded Dukemasters award (JavaSoft sales club trip to Portofino, Italy)
- Promoted and licensed Java Card to leading smartcard vendors
- Managed a team of 14 engineers implementing the Java Electronic Commerce Framework (JECF), JavaWallet and Java Card API
- Acquired Integrity Arts Inc from Gemplus (France); merged 30 person engineering team into JavaCard team
- Member of management team working for Eric Schmidt and later Alan Baratz
- Evangelized JavaSoft EC strategy to CEOs and VPs of Fortune 500 companies
- Created the Java Electronic Commerce Framework (JECF) and JavaWallet, client-side API and GUI, respectively, for merchant, finance and payment and financial applications

Sun Microsystems Laboratories: Principal Investigator (1990 to 1995)

- Led a team of 10 researchers in the creation of a new object-oriented programming environment and language for distributed CORBA applications
- Consulted to product organization on distributed-object strategy
- Built an on-the-fly SPARC code generator, and an object-oriented database model and debugging model for new operating system
- Transferred several technology projects from research lab into product organization
- Member of Bill Joy's Aspen team that created Java language
- Researcher in new distributed computing paradigms on the Spring Operating System project
- Recognized by Bjarne Stroustrup as a key contributor to the C++ language in his book The Design and Evolution of C++
- Participated in the design and standardization of C++ on ANSI C++ committee
- Consulted to business organization on C++ product strategy

ParcPlace Systems / Xerox Palo Alto Research Center

Cofounder / Manager of New Environments

- Led a team of six engineers and created Objectworks for C++, the first programming environment for the C++ language from version 1.0 to version 2.1
- Ported Smalltalk virtual machine to HP/UX
- Developed Smalltalk to C native calling interface
- Member of the executive management team & coauthor of business plan leading to successful spin-off from PARC and eventual IPO

CoDesign, Berkeley California

- Created Computer Innovations' C86Plus, the first optimizing compiler using mainframe compilation technology on microprocessors for C on Intel chips.
- Designed, programmed, implemented, launched from version 1.0 to version 3.0
- · Created a compiler optimizer authoring environment and toolkit

Yates Ventures

- Evaluated companies and created market research
- Ghost writer of mass market UNIX books
- Wrote business plan for Microsoft C language products and transition plan from Pascal to C

Education

University of California at Santa Cruz; Ph.D. Biomolecular Engineering/Bioinformatics 2013 University of California at Santa Cruz; M.S. Biomolecular Engineering/ Bioinformatics 2011 University of California at Santa Cruz; B.A. Computer and Information Science 1983

- Senior thesis: Implementation of Process Synchronization in the UNIX Kernel
- Beta test site administrator and local contributor to Berkeley UNIX (BSD) project.
- In Harry Noller's lab, Developed Stream, the first RNA/DNA software for comparing genetic sequences.

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1984 to 1986

1983 to 1984

1986 to 1990

Awards and Advisory Boards Appointments

- UC Santa Cruz Foundation Trustee (third term) and executive committee
- First Distinguished Alumnus and Chairman of the Dean's Advisory Board, Jack Baskin School of Engineering, University of California at Santa Cruz, 2005
- Nominated to the board of trustees of the UC Santa Cruz Foundation
- EarlyBird III Venture Capital Fund Advisory Board
- Multimode/Clickatell Instant Messaging Company Advisory Board
- Sun Microsystems' President's Award 1997 from Scott McNealy

Patents and Publications

Dysregulation of hsa-miR-34a and hsa-miR-449a leads to overexpression of PACS-1 and loss of DNA damage response (DDR) in cervical cancer, rameet Kumar, Roopa Biswas, Rita Chakrabarti, Jing Lu, Trent Su, Marcus Gallagher-Jones, Marco Morselli, Haiqing Fu, Matteo Pellegrini, Theodore Goldstein, Mirit I. Aladjem, Matthew B. Rettig, Sharon P. Wilczynski, Daniel Sanghoon Shin and Eri S. Srivatsan, JBC Journal of Biological Chemistry 2020

Protected Health Information filter (Philter): accurately and securely de-identifying free-text clinical notes, Beau Norgeot, Kathleen Muenzen, Thomas A. Peterson, Xuancheng Fan, Benjamin S. Glicksberg, Gundolf Schenk, Eugenia Rutenberg, Boris Oskotsky, Marina Sirota, Jinoos Yazdany, Gabriela Schmajuk, Dana Ludwig, Theodore Goldstein & Atul J. Butte, Nature Digital Medicine, 3, 57 (2020)

Blockchain-Authenticated Sharing of Genomic and Clinical Outcomes Data of Patients With Cancer: A Prospective Cohort Study, Benjamin Scott Glicksberg, PhD; Shohei Burns, BSc; Rob Currie, MBA; Ann Griffin, PhD; Zhen Jane Wang, MD; David Haussler PhD; Theodore Goldstein, PhD; Eric Collisson, MD A Prospective Cohort Study, J Med Internet Res 2020;22(3):e16810

MEK-ERK signaling is a therapeutic target in metastatic castration resistant prostate cancer Nicholas G. Nickols, Ramin Nazarian, Shuang G. Zhao, Victor Tan, Vladislav Uzunangelov, Zheng Xia, Robert Baertsch, Elad Neeman, Allen C. Gao, George V. Thomas, Lauren Howard, Amanda M. De Hoedt, Josh Stuart, Theodore Goldstein, Kim Chi, Martin E. Gleave, Julie N. Graff, Tomasz M. Beer, Justin M. Drake, Christopher P. Evans, Rahul Aggarwal, Adam Foye, Felix Y. Feng, Eric J. Small, William J. Aronson, Stephen J. Freedland, Owen N. Witte, Jiaoti Huang, Joshi J. Alumkal, Robert E. Reiter & Matthew B. Rettig, Prostate Cancer and Prostatic Diseases volume 22, pages531–538(2019)

PatientExploreR: an extensible application for dynamic visualization of patient clinical history from electronic health records in the OMOP common data model, Benjamin S Glicksberg, Boris Oskotsky, Phyllis M Thangaraj, Nicholas Giangreco, Marcus A Badgeley, Kipp W Johnson, Debajyoti Datta, Vivek A Rudrapatna, Nadav Rappoport, Mark M Shervey, Riccardo Miotto, Theodore C Goldstein, Eugenia Rutenberg, Remi Frazier, Nelson Lee, Sharat Israni, Rick Larsen, Bethany Percha, Li Li, Joel T Dudley, Nicholas P Tatonetti, Atul J Butte, Bioinformatics, Volume 35, Issue 21, 1 November 2019,

Comparative tumor RNA sequencing analysis for difficult-to-treat pediatric and young adult patients with cancer, Olena M. Vaske, PhD; Isabel Bjork, JD, MSc; Sofie R. Salama, PhD; Holly Beale, PhD; Avanthi Tayi Shah, MD; Lauren Sanders, BSc; Jacob Pfeil, BSc; Du L. Lam, BSc; Katrina Learned, BSc; Ann Durbin, BSc; Ellen T. Kephart, BSc; Rob Currie, MBA; Yulia Newton, PhD; Teresa Swatloski, BSc; Duncan McColl, BSc; John Vivian, PhD; Jingchun Zhu, PhD; Alex G. Lee, PhD; Stanley G. Leung, BSc; Aviv Spillinger, BSc; Heng-Yi Liu, BSc; Winnie S. Liang, PhD; Sara A. Byron, PhD; Michael E. Berens, PhD; Adam C. Resnick, PhD; Norman Lacayo, MD; Sheri L. Spunt, MD; Arun Rangaswami, MD; Van Huynh, MD; Lilibeth Torno, MD; Ashley Plant, MD; Ivan Kirov, MD; Keri B. Zabokrtsky, MSc; S. Rod Rassekh, MD; Rebecca J. Deyell, MD; Janessa Laskin, MD; Marco A. Marra, PhD; Leonard S. Sender, MD; Sabine Mueller, MD, PhD; E. Alejandro Sweet-Cordero, MD; Theodore C. Goldstein, PhD; David Haussler, PhD, - JAMA Network, 2019

Barriers to accessing public cancer genomic data, Katrina Learned, Ann Durbin, Robert Currie,

Ellen Towle Kephart, Holly C. Beale, Lauren M. Sanders, Jacob Pfeil, Theodore C.Goldstein, Sofe R. Salama, David Haussler, Olena Morozova Vaske & Isabel M. Bjork, Nature Scientific Data, 2019

Linking clinical molecular profiles of tumors to the electronic medical record, D Datta, A Butte, T Goldstein - AACR Conference 2019

Genomic hallmarks and structural variation in metastatic prostate cancer, DA Quigley, HX Dang, SG Zhao, P Lloyd, R Aggarwal, JJ Alumkal, T Goldstein et.al **Cell** 174 (3), 758-769. 2018

Luminal and basal subtyping of metastatic castration-resistant prostate cancer (mCRPC) and its clinical implications.W Kim, EJ Small, RR Aggarwal, RB Den, J Lehrer, L Zhang, J Youngren, T Goldstein **Journal of Clinical Oncology**, 2018

Comprehensive transcriptomic analysis of cell lines as models of primary tumor samples across 22 tumor types K Yu, B Chen, D Aran, T Goldstein, M Sirota **bioRxiv**, 422592 2018

Yulia Newton, Adam Novak, Teresa Swatloski, Duncan McColl, Sahil Chopra, Kiley Graim, Alana Weinstein, Robert Baertsch, Sofie Salama, Kyle Ellrott, Manu Chopra, *Theodore Goldstein*, David Haussler, Olena Morozova, and Joshua Stuart, TumorMap: Exploring the molecular similarities of cancer samples in an interactive portal, **AACR Cancer Research**, manuscript accepted.

Terrence Meehan, Nathalie Conte, Theodore Goldstein, et.al, PDX-MI: Minimal Information for Patient-Derived Tumor Xenograft Models, **AACR Cancer Research**, manuscript accepted.

Youngren et.al. Identification of pathways associated with abiraterone resistance in metastatic castration resistant prostate cancer: Preliminary results from the SU2C/AACR West Coast Prostate Cancer Dream Team. **Proceedings: AACR 106th Annual Meeting 2015.**

Baertsch et al. Using Medbook Workbench to create evidence streams to guide medical decisions. Proceedings: AACR 106th Annual Meeting 2015

Woodward et.al..Integrative genomic analysis to identify emergent enzalutamide resistance mechanisms in castration-resistant prostate cancer. **Proceedings: AACR 106th Annual Meeting 2015**

Rehan Akbani, Karl-Friedrich Becker, Neil Carragher, Ted Goldstein, Leanne de Koning, Ulrike Korf, Lance Liotta, Gordon B. Mills, Satoshi S. Nishizuka, Michael Pawlak, Emanuel F. Petricoin III, Harvey B. Pollard, Bryan Serrels and Jingchun Zhu; **Realizing the Promise of Reverse Phase Protein Arrays for Clinical, Translational, and Basic Research: A Workshop Report The Reverse Phase Protein Array**, MPR 2014 - ASBMB

Ng, Sam; Collisson, Eric A; Goldstein, Theodore; Gonzalez-Perez, Abel; Lopez-Bigas, Nuria; Benz, Chistopher; Haussler, David; Stuart, Joshua M; **Biomedicine In 4D** 2012

Goldstein, Theodore C; Paull, Evan O; Ellis, Matthew J; Stuart, Joshua M; Molecular Pathways: **Extracting Medical Knowledge From High-Throughput Genomic Data**, Clinical Cancer Research 19 12 3114-3120 AACR 2013

Goldstein, Theodore Charles; **Tools For Extracting Actionable Medical Knowledge From Genomic Big Data** Ph.D. Thesis UC Santa Cruz 2013

Kandoth, C; Schultz, N; Cherniack, Ad; Akbani, R; Liu, Y; Shen, H; Robertson, Ag; Pashtan, I; Shen, R; Benz, Cc; Integrated Genomic Characterization Of Endometrial Carcinoma. Nature 497 7447 67-73 2013

Ellis, Matthew J; Ding, Li; Shen, Dong; Luo, Jingqin; Suman, Vera J; Wallis, John W; Van Tine, Brian A; Hoog, Jeremy; Goiffon, Reece J; Goldstein, Theodore C; **Whole-Genome Analysis Informs Breast Cancer Response To Aromatase Inhibition Nature** 486 7403 353-360 2012 Nature Publishing Group Ellis, Matthew James; Ding, Li; Shen, Dong; Luo, Jingqin; Suman, Vera J; Goiffon, Reece J; Wallis, John W; Goldstein, Theodore C; Chen, Ken; Allred, Donald Craig; **Whole Genome Sequencing To Characterize Luminal-Type Breast Cancer** Journal Of Clinical Oncology 30 15 2012 Amer Soc Clinical Oncology 2318 Mill Road, Ste 800, Alexandria, Va 22314 Usa

Hammerman, Peter S; Lawrence, Michael S; Voet, Douglas; Jing, Rui; Cibulskis, Kristian; Sivachenko, Andrey; Stojanov, Petar; Mckenna, Aaron; Lander, Eric S; Gabriel, Stacey; **Comprehensive Genomic Characterization Of Squamous Cell Lung Cancers Nature** 489 7417 519-525 2012

Heiser, Laura M; Sadanandam, Anguraj; Kuo, Wen-Lin; Benz, Stephen C; Goldstein, Theodore C; Ng, Sam; Gibb, William J; Wang, Nicholas J; Ziyad, Safiyyah; Tong, Frances; **Subtype And Pathway Specific Responses To Anticancer Compounds In Breast Cancer** Proceedings Of The National Academy Of Sciences 109 8 2724-2729 2012 National Acad Sciences

Lewallen, Stephen R; Goldstein, Theodore C; Drukman, Maxwell O; **Simultaneous Viewing Of Multiple Tool Execution Results** US Patent 2012

Muzny, Donna M; Bainbridge, Matthew N; Chang, Kyle; Dinh, Huyen H; Drummond, Jennifer A; Fowler, Gerald; Kovar, Christie L; Lewis, Lora R; Morgan, Margaret B; Newsham, Irene F; **Comprehensive Molecular Characterization Of Human Colon And Rectal** Cancer Nature 487 330-337 2012

Ng, Sam; Collisson, Eric A; Sokolov, Artem; Goldstein, Theodore; Gonzalez-Perez, Abel; Lopez-Bigas, Nuria; Benz, Christopher; Haussler, David; Stuart, Joshua M; **Paradigm-Shift Predicts The Function Of Mutations In Multiple Cancers Using Pathway Impact Analysis Bioinformatics** 28 18 I640-I646 Oxford University Press 2012

Goldstein, Theodore C; Lewallen, Stephen R; Drukman, Maxwell O; **Event-Based Setting Of Process Tracing Scope** US Patent 2011

Goldstein, Theodore C; Naroff, Stephen; Austern, Matthew; Jahanian, Fariborz; Jirman, Stan; Bertelrud, P Anders I; **Speculative Compilation** US Patent 2011

Bowdidge, Robert; Payne, David; Wendker, Andreas; Naroff, Steve; Pontious, Andrew; Goldstein, Theodore C; **Stepwise Source Code Refactoring** US Patent 2006

Goldstein, Theodore C; Rubin, Paul H; Method And System For Secure Guaranteed Transactions Over A Computer Network US and World Patent 2005

Bertelrud, P Anders I; Goldstein, Theodore C; **Predictively Processing Tasks For Building Software** US Patent 2003

Di Giorgio, Rinaldo; Goldstein, Theodore; Neiman, Diana; Bender, Michael; **Electronic Vault For Use In Processing Smart Product Transactions** US Patent 2002

Goldstein, Theodore C; Martinez, Ronald G; Rubin, Paul; **Trusted Agent For Electronic Commerce** US and World Patent 2002

Goldstein, Theodore Charles; Ziegler, Jonathan B; Multi-Venue Ticketing Using Smart Cards European and US Patent 2002

Herman, Gary; Goldstein, Theodore Charles; Martinez, Ronald G; **Smart Electronic Receipt System** US and World Patent 2002

Eastlake, D; Goldstein, Ted; Ecml V1. 1: Field Specifications For E-Commerce, April 2001

Goldstein, Theodore Charles; Ziegler, Jonathan B; **Multi-Venue Ticketing Using Smart Cards** US Patent 2001

Goldstein, Theodore; Herman, Gary; Martinez, Ronald; Smart Electronic Receipt System 2001

Gibbons, Jonathan J; Day, Michael J; Goldstein, Theodore C; Jordan, Michael J; **A Typesafe Framework For Dynamically Extensible** Objects US Patent 1998, European Patent 2000

Kippenhan, Roland; Goldstein, Theodore; Cassidy, Matthew; Sells, Andrew; Chase, William

Autonomous Browsing Agent World Patent 2000

Lipkin, Efrem; Goldstein, Theodore C; **Controlling Access To Services Between Modular Applications** European Patent 2000

Rubin, Paul; Goldstein, Theodore; Cryptographic Representation Of Sessions 2000 World Patent 2,000,079,726

Rubin, Paul; Goldstein, Theodore; Software Smart Card 2000 World Patent

Eastlake, D; Goldstein, Ted; Ecml V1: Field Names For E-Commerce 1999 Rfc 2706, September

Lipkin, Efrem; Goldstein, Theodore C; **Permit For Controlling Access To Services In Protected Memory Systems** European Patent 1999

Bender, Michael; Di Giorgio, Rinaldo; Goldstein, Theodore; Neiman, Diana; Electronic Vault For Use In Processing Smart Product Transactions 1998 US Patent

Goldstein, Theodore; **The Gateway Security Model In The Java Electronic Commerce Framework Financial Cryptography** 340-354 Springer Verlag 1997

Deutsch, L Peter; Goldstein, Theodore C; Lewis, Brian T; **Clarity Mcode: A Retargetable Intermediate Representation For Compilation** Sun Microsystems Laboratories Technical Report. 1995

Lewis, Brian T; Deutsch, L Peter; Goldstein, Theodore C; Clarity Mcode: A Retargetable Intermediate Representation For Compilation Acm Sigplan Notices 30 3 119-128 ACM 1995

Goldstein, Theodore C; Sloane, Alan D; **The Object Binary Interface--C++ Objects For Evolvable Shared Class Libraries** Sun Microsystems Laboratories Technical Report 1994

Goldstein, Theodore C; Supporting **The Evolution Of Class Definitions** ACM Sigplan Oops Messenger 5 2 103-105 Acm 1993

Auer, K; Goldstein, T; Sridhar, S; Love, T; Thomas, D; **From Prototype To Product-Discussion Sigplan Notices** 24 10 482-484 ACM 1989

Rubin, Kenneth S; Jones, Patricia M; Mitchell, Christine M; Goldstein, Theodore C; A Smalltalk Implementation Of An Intelligent Operator's Associate ACM Sigplan Notices 23 11 234-247 1988

Noller, Hf; Asire, M; Barta, A; Douthwaite, S; Goldstein, T; Gutell, Rr; Moazed, D; Normanly, J; Prince, Jb; Stern, S; **Structure, Function And Genetics Of Ribosomes** Springer-Verlag, New York 1986

Numerous Posters at PCF, AACR and other conferences.

Presentations

Silicon Valley Nexus Meetup (upcoming May 18 2016)

SU2C / AACR / PCF West Coast Dream Team meetings 2013, 2014, 2015

Keynote Speaker at the Oregon Bio 2014

Keynote Speaker at Association of American Cancer Institutes 2013

Keynote Speaker at Celebration of Science, Prostate Cancer Foundation 2012

Keynote Speaker at XLDB (Extremely Large Database Conference) 2012

Differential Pathway Signature Correlations Poster at the United States National Cancer Institute The Cancer Genome Atlas (TCGA) Steering Committee. Houston. April 2012.

Commencement Address, Baskin School of Engineering, UC Santa Cruz June 2007

Developer Tools Keynote Speaker at Apple World Wide Developer Conferences (2002-2006), including a Steve Note (during Steve Jobs keynote speech)

Israel IBM Technology Conference (keynote) 2004

RSA conference 1995, 1996

Oopsla 1991 Issues in moving from C to C++

JavaOne conferences 1995, 1996, 1997

Financial Cryptography 1997

USENIX C++ Conference 1994

MAHESWARI SENTHIL M.D, FACS

EDUCATION

m.senthil@uci.edu

LDUCATION	
Complex General Surgical Oncology Fellow City of Hope National Medical Center & Beckman Research Institute, Duarte, C	Jul 2008- Jun 2010
Administrative Chief Resident University of Medicine and Dentistry of New Jersey, Department of Surgery	Jul 2007- Jun 2008
Senior Resident in Surgery University of Medicine and Dentistry of New Jersey, Department of Surgery	Jul 2005- Jun 2007
Research Fellow University of Medicine and Dentistry of New Jersey, Department of Surgery, PI: Dr. Edwin A. Deitch	Jul 2003-June 2005
Surgical Resident University of Medicine and Dentistry of New Jersey, Department of Surgery	Jul 2001- Jun 2003
Post-Doctoral Research Fellow Children's Hospital – Boston, Department of Pediatric Surgery, PI: Drs. Judah Folkman & Jennifer Marler	Jul 2000-May 2001
Bachelor of Medicine and Surgery Madurai Medical College, Tamilnadu, India	Jun 1992 - Jan 1998
Work Experience	
Chief, Division of Surgical Oncology University of California –Irvine, Orange, CA	July 2021 to present
Medical Director (Interim) of Cancer Operations University of California –Irvine, Orange, CA	July 2021 to present
Founding Program Director, Complex General Surgical Oncology Fellowship University of California – Irvine, Orange, CA	April 2021 to Present
Acting Chief, Division of Surgical Oncology University of California –Irvine, Orange, CA	Aug 2020 to June 2021
Co-Director of Surgical Research University of California –Irvine, Orange, CA	Aug 2020 to present

Director of Peritoneal Malignancy ProgramMay 2020 to presentUniversity of California –Irvine, Orange, CAMay 2020 to present

Chief, Division of Surgical Oncology Loma Linda University Health- Loma Linda, CA	Aug 2015 to Jan 2020
Founding Program Director, Complex General Surgical Oncology Fellowship Loma Linda University Health- Loma Linda, CA	July 2015 to Jan 2020
Director, Peritoneal Surface Malignancy Program Loma Linda University Health- Loma Linda	Aug 2013 to Jan 2020
Cancer Program Leader and Director Loma Linda University Medical Center- Murrieta, CA	Aug 2018 to Jan 2020
Attending Surgeon, Division of Surgical Oncology Loma Linda University Health- Loma Linda, CA	Sep 2010 to Jul 2015
ACADEMIC APPOINTMENTS	

Professor of Clinical Surgery University of California –Irvine, Orange, CA	Dec 2020 to present
Professor of Clinical Pathology and Laboratory Medicine University of California –Irvine, Orange, CA	Dec 2020 to present
HS Clinical Professor of Surgery University of California –Irvine, Orange, CA	May 2020 to Dec 2020
Associate Professor Loma Linda School of Medicine, Loma Linda, CA	Sep 2013 to Dec 2019
Assistant Professor Loma Linda School of Medicine, Loma Linda, CA	Sep 2010 to Aug 2013

LICENSES AND BOARD CERTIFICATION

Medical Board of California License # A104024

Exp-11-20-2021

American Board of Surgery Certificate # 53954, Issued 12-08-2008

Recertification- 09-27-2018, Valid 01-29-22

OTHER HOSPITAL APPOINTMENTS

Cancer Clinical Operations Committee May 2020 to present

University of California, Irvine, CA

Senior Leadership Council Chao Comprehensive cancer center

June 2020 to present

University of California, Irvine, CA	
Faculty Mentorship Committee University of California, Irvine, CA	June 2020 to present
Resident confidential advisor University of California, Irvine	Aug 2020 to present
Quality Improvement Committee University of California, Irvine	Mar 2021 to present
Medical Staff Executive Committee Secretary Loma Linda University Medical Center, Loma Linda, CA	July 2018 to Dec 2019
Cancer Committee Chair Loma Linda University medical center, Murrieta, CA	Jan 2019 to Dec 2019
Cancer Liaison Physician Loma Linda Cancer Center, Loma Linda, CA	Aug 2012 to July 2018
Medical Informatics Liaison Officer Loma Linda Medical Center, Loma Linda, CA	July 2011 to Dec 2019

ACADEMIC AWARDS & HONORS

Distinction in Anatomy and Physiology, MGR University of Medicine, Tamilnadu, India.	1992
University First Rank – Pharmacology, MGR University of Medicine, Tamilnadu, India	1995
Graduated Top 1% of the class, Madurai Medical College, Madurai, India	1998
Outstanding ICU Resident Award, UMDNJ – Division of Trauma & Critical Care	2003
Academic Excellence Award, UMDNJ – Department of Surgery	2003
Outstanding Manuscript Award, Basic Science Category, American College of Surgeons, NJ Chapter	2004
Academic Excellence Award, UMDNJ – Department of Surgery	2004
Joseph Susman Memorial Award for Best Paper Presentation, Second Joint Meeting, Surgical Infection Society of North America & Europe.	2005
Academic Excellence Award, UMDNJ – Department of Surgery	2005
Outstanding Trauma Resident Award, UMDNJ – Division of Trauma/Critical Care	2006
Academic Excellence Award, UMDNJ – Department of Surgery	2006
Outstanding Resident Award, Hackensack University Medical Center, NJ	2008
Academic Excellence Award, UMDNJ – Department of Surgery	2008
Alpha Omega Alpha, New Jersey Chapter, UMDNJ -Medical School	2008
Poster Competition - Second Place Winner, Multidisciplinary GI Conference, City of Hope, Duarte, CA	2010

Healing Hands Award	2017
Healing Hands Award	2018

TEACHING AWARDS & HONORS

Excellence in Teaching Award, UMDNJ – Department of Surgery	2006
Excellence in Medical Student Teaching, UMDNJ – Department of Surgery	2007
Golden Apple Award for Excellence in Teaching, UMDNJ	2008
Excellence in Medical Student Teaching, UMDNJ – Department of Surgery	2008
Alpha Omega Alpha, Beta New Jersey Chapter, UMDNJ – New Jersey Medical School	2008
Arnold P. Gold Award for leadership and Humanism, NJ	2008
Excellence in Education – Loma Linda University Health	2019
John Connolly Teacher of the Year Award	2021

DOCTORAL DISSERTATION COMMITTEE MEMBER

Jabo Brice	Doctor of Public Health 2017
Ron Myron	PhD, 2018
Ji Liang	Doctor of Public Health 2018
Janviere Kabagwira	PhD Candidate, 2021

SURGICAL RESIDENT RESEARCH MENTORSHIP

Audrey Choi, MD	2012-2014
Loma Linda University	
Laurel Guthrie, MD	2014-2019
Loma Linda University	
Brittany Sullivan, MD	2020- present
University of California, Irvine	
Shaina Sedeghim, MD	2020-present
University of California, Irvine	
JingJing Yu, MD	2021- present
University of California, Irvine	

MEDICAL STUDENT RESEARCH MENTORSHIP

Angelina Lo (MS4) University of California, Irvine Shahin Hania (MS1) Oct 2020- present

Jan 2021- present

University of California, Irvine	
Janteshpreet Sandhu (MS1)	Jan 2021-present
University of California, Irvine	
Jessica de la Torre (MS1)	Jan2021-present
University of California, Irvine	
Brittany Le (MS1)	Jan2021-present
University of California, Irvine	

SURGICAL ONCOLOGY FELLOWS TRAINED

2016-2018
2017-2019
2018-2020
2019-2020

UNDERGRADUATE RESEARCH EDUCATION- BIO 199 PROGRAM

Diego A. Gonzalves	2021
Nathan H. Nguyen	2021
Desouza, Michael	2021
Christina B. Barsoum	2021
Tina Thuy T. Nguyen	2021

SCIENTIFIC SOCIETY MEMBERSHIPS

American College of Surgeons	2003 to present
Association of Women Surgeons	2005 to present
• Alpha Omega Alpha – Lifetime member	2008 to present
Society of Surgical Oncology	2008 to present
American Association of Cancer Research	2011 to present
Pacific Coast Surgical Association	2013 to present
Arnold P. Gold Humanism foundation	2008 to present

EDITORIAL AND EDUCATIONAL CONTRIBUTION

• Association of Women Surgeons – Professional Development Coach December 2020 to present

•	Editorial Board member – Annals of Surgical Oncology	August 2020 to present
•	Ad-Hoc reviewer – Journal of Surgical Oncology	July 2016 to present
٠	Ad-Hoc Reviewer – World Journal of Surgical Oncology	July 2017 to present
•	Ad-Hoc Reviewer – Journal of Gastrointestinal Oncology	July 2015 to present

SCIENTIFIC SOCIETY APPOINTMENTS

•	Southern California Chapter ACS, Program Committee Chair	Jan 2019 to present
•	Society of Surgical Oncology- International Committee	Mar 2021 to present
•	Society of Surgical Oncology- Program Directors Committee	April 2021 to present
•	Pacific Coast Surgical Association – Multi-institution trials committee	Feb 2021 to present
•	Society of Surgical Oncology- Advanced cancer therapies Committee	Aug 2020 to present
•	Eastern Cooperative Oncology Group- American Radiology	
	Imaging Network – Hyperthermic intraperitoneal working group	Feb 2016 to present
•	Southwestern Oncology group Gastrointestinal Committee Member	July 2019 to present
•	Southwestern Oncology group Translation Medicine Committee Member	July 2019 to present

• Society of Surgical Oncology – Peritoneal disease working group member July 2018 to Mar 2021

CLINICAL TRIALS AND STUDIES

Sequential Systemic and intraperitoneal chemotherapy with	Principal Investigator
Paclitaxel for Gastric/GEJ adenocarcinoma peritoneal	2020-
Carcinomatosis (STOPGAP)– Investigator-initiated Phase II	
trial. UCI 20-87	

This is a phase II clinical trial to assess the effect of sequential systemic chemotherapy followed by intraperitoneal chemotherapy with Paclitaxel on one-year progression-free survival in patients with gastric/GEJ adenocarcinoma peritoneal carcinomatosis. NCT 04762953. Open for Accrual

Plasma exosomal gene signature and PD-L1 expression to	Principal Investigator
assess response to immune checkpoint inhibition in solid	2020-
organ malignancies – Prospective clinical study UCI 20-101	

This is a prospective clinical study to assess the utility of exosomal gene signature and PD-L1 expression in predicting response to immune checkpoint inhibition in solid organ malignancies including melanoma. Open for accrual

University of California Minority Patient-Derived Xenograft	Co-Investigator
(PDX) Development and Trial Center (UCaMP 54) to	2021-
Reduce Cancer Health Disparities	

This is a prospective clinical study to assess the utility of exosomal gene signature and PD-L1 expression in predicting response to immune checkpoint inhibition in solid organ malignancies including melanoma. Open for accrual

Proof of Concept Study of ctDNA Guided Change in	Co-Investigator
Treatment for Refractory Minimal Residual Disease in	2021-
Colon Adenocarcinomas.	

Prospective study to assess the utility of ctDNA guided treatment in colon adenocarcinoma for molecular residual disease. Open for accrual

Pilot Trial Comparing Circulating Tumor DNA (ctDNA)	Co-Investigator
From Immediate Draining Vein vs. Standard Peripheral	2021-
Vein Sample in Patients Undergoing Biopsies for	
Hepatobiliary and Pancreatic Cancers	

Prospective study to compare ctDNA from immediate draining vein and peripheral vein in patients with hepatopancreatobiliary cancers. Open for accrual

An Open Label Phase II Study for the Treatment of Liver	Co-Investigator
Metastatic Colorectal Cancer and Non-Small Cell Lung	2021-
Cancer with a Combination of TATE (Trans-Arterial	
Tirapazamine Embolization) and Pembrolizumab	

Prospective study to assess the effectiveness of transarterial embolization with Tirapazamine combined with pembrolizumab in metastatic colorectal cancer and Non-small cell lung cancer. Open for accrual

Development of Gastric and Gastroesophageal Junction	Co-Investigator
(GEJ) and Hepatocellular Carcinoma Cancer Patient	2021-
Derived Xenograft Mouse Models to Investigate	
Chemotherapy Resistance and Tumor Cell Response	

Patient derived xenograft mouse models of gastric and liver cancers to assess treatment response.

Patient Derived Xenograft Models of Gastrointestinal	Principal Investigator
Malignancies	2021-

Patient derived xenograft mouse models of gastrointestinal malignancies to assess treatment response.

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Lifestyle intervention education program to prevent and<br/>control breast cancerCo-Principal Investigator<br/>2011-2012
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The objective of this project was to increase the awareness about breast cancer screening and educate about lifestyle changes among women who reside in impoverished areas of San Bernardino County. This study was funded by Kaiser Permanente. Study PI: Dr. Padma Uppala. Status: Completed

BASIC SCIENCE RESEARCH

Vascularized microtumor and Tumor-on-chip model for peritoneal	Jan 2021- Current
carcinomatosis	
Development of tumor-on-chip microtumor and peritoneal carcinomatosis xenografts to test different treatment regimens for intraperitoneal treatment	
Exosomal biomarkers in peritoneal carcinomatosis, Principal Investigator	Dec 2015- current
Intramurally funded project, designed to identify serum exosomal biomarkers carcinomatosis that could be used as predictive and/or prognostic markers.	in colorectal peritoneal
Cytoglobin gene reactivation as a novel therapeutic strategy for breast cancer, Principal Investigator	Dec 2011- 2014
Two-year study funded by an intramural research grant from Loma Line Investigated the effect of epigenetic alterations of Cytoglobin gene in breast car	
Novel Anti- cancer drug designing and testing in breast cancer, PI: Dr. John Yim	Jul 2008- July 2010
Actively involved in designing and testing novel STAT3 (Signal Transdu Transcription 3) inhibitors to treat breast cancer. Collaborated with the dev program at City of Hope and identified novel anti-cancer agents, targeting STA	velopmental therapeutics
Molecular Mechanisms of Organ injury in Trauma/Hemorrhagic shock. PI: Dr. Edwin Deitch	Jul 2003- Jun 2005
Developed several successful hemorrhagic-shock animal models and studied the that led to shock-induced end organ injury. Investigated the anti-apoptotic prop- use as a resuscitative fluid in hemorrhagic shock.	
Skeletal Muscle Tissue Engineering and Angiogenesis	Jul 2000- May 2001
PI: Drs. Judah Folkman and Jennifer Marler	
Investigated the use of skeletal muscle constructs as a muscle substitute in a neural development and angiogenesis in the implanted skeletal muscle construct	
GRANTS	
GRANTS Stern Center for Clinical Trials	April 2021 - presen
	April 2021 - presen
Stern Center for Clinical Trials	April 2021 - presen
Stern Center for Clinical Trials University of California, Irvine	
Stern Center for Clinical Trials University of California, Irvine Gastric cancer STOPGAP, Phase II trial	April 2021 - presen June 2021- presen

Gastric cancer STOPGAP, Phase II trial	
Principal Investigator (20% effort); \$ 40,000	
Melanoma Foundation Fund	Mar 2021- Mar 2022
Exosomal-PDL1 prospective clinical study in Melanoma	
Principal Investigator (20% effort) \$ 50,000	Mar 2016- Dec2019
Grants to promote Collaborative and Translational research	
Exosomal biomarkers in colorectal peritoneal carcinomatosis	
Co- Principal Investigator (20% effort); \$75,000	
Funding organization: Loma Linda University	
Grants to promote Collaborative and Translational research	Mar 2014- Mar 2016
Grants to promote Collaborative and Translational researchTo define the role of cytoglobin in aminoflavone-induced cancer cell death	Mar 2014- Mar 2016
-	Mar 2014- Mar 2016
To define the role of cytoglobin in aminoflavone-induced cancer cell death	Mar 2014- Mar 2016
To define the role of cytoglobin in aminoflavone-induced cancer cell death Principal Investigator (20% effort); \$ 75,000	Mar 2014- Mar 2016 Jan 2011- Sep 2012
To define the role of cytoglobin in aminoflavone-induced cancer cell death Principal Investigator (20% effort); \$ 75,000 Funding organization: Loma Linda University	
To define the role of cytoglobin in aminoflavone-induced cancer cell death Principal Investigator (20% effort); \$ 75,000 Funding organization: Loma Linda University Lifestyle intervention program to prevent and control breast cancer	
To define the role of cytoglobin in aminoflavone-induced cancer cell death Principal Investigator (20% effort); \$ 75,000 Funding organization: Loma Linda University Lifestyle intervention program to prevent and control breast cancer Education of women about positive lifestyle changes to prevent and control	

PEER-REVIEWED PUBLICATIONS

- VL Kaiser, Z Sifri, M Senthil, G S Dikdan, Q Lu, DZ Xu, EA. Deitch. Albumin peptide: a molecular marker for trauma / hemorrhagic-shock in rat mesenteric lymph. <u>Peptides</u> 2005; 26(12): 2491-2499
- M Senthil, M.D., M Brown M.S.N., DZ Xu, M.D., PhD., Q Lu, M.D., E Feketeova M.D., EA. Deitch, M.D. Gut- Lymph Hypothesis of SIRS/MODS: Validating studies in a Porcine Model. <u>J</u> <u>Trauma</u> 2006; 60(5): 958-65.
- M Senthil, M.D., A Watkins, M.D., D Barlos, M.D., DZ Xu M.D., PhD, Q Lu M.D., B Abungu B.Sc., R Feinman PhD, EA. Deitch, M.D. Intravenous injection of Trauma- hemorrhagic shock mesenteric lymph causes lung injury that is dependent upon activation of the inducible nitric oxide synthase pathway. <u>Ann Surg</u> 2007; 246(5):822-30.
- FJ Caputo, B Rupani, AC Watkins, DBarlos, D Vega, M Senthil, EA. Deitch. Trauma hemorrhageinduced gut barrier failure and the production of biologically active intestinal lymph require pancreatic proteases. <u>Shock</u> 2007; 28(4): 441-6

- EA Deitch, M Senthil, M Brown, F Caputo, A Watkins, D Anjaria, C Badami, V Pisarenko, D Doucet, Q Lu, E Feketeova, DZ Xu. Trauma- Shock-induced gut injury and the production of biologically active intestinal lymph are abrogated by castration in a large animal model. <u>Shock</u> 2008; 30(2): 135-41.
- C Badami, M Senthil, FJ Caputo, BJ Rupani, Doucet D, Pisarenko V, Xu DZ, EA Deitch. Mesenteric Lymph duct ligation improves survival in lethal shock model. *Shock* 2008; 30(6):680-5.
- J Kim, B Mailey, M Senthil, A Artinyan, CL Sun, S Bhatia. Disparities in gastric cancer outcomes among Asian ethnicities in the USA. <u>Ann Surg Oncol</u> 2009; 16(9): 2433-41.
- 8. **M Senthil**, LE Harrison. Bicavitary hyperthermic chemotherapy in the management of pseudomyxoma peritoneii with pleural extension. <u>*Arch Surg*</u> 2009;144(10)970-972
- M Senthil, B Mailey, L Leong, V Chung, Y Yen, YJ Chen, H Marx, J Kim. Liver-directed therapies in the multidisciplinary management of Hepatocellular cancer. <u>Curr Cancer Ther Rev</u> 2010;6:19-25
- J Gao, M Senthil, B Ren, J Yan, Q Xing, J Yu, L Zhang, JH Yim. IRF-1 transcriptionally up regulates PUMA, which mediates the mitochondrial apoptotic pathway in IRF-1 induced apoptosis in cancer cells. <u>Cell Death Differ</u> 2010;17(4):699-709
- 11. R Buettner, R Corzano, R Rashid, J Lin, M Senthil, M Hedvat, A Schroeder, A Mao, A Herrmann, J Yim, H Lin, YC Yuan, YC Yuan, K Yakushijin, F Yakushijin, N Vaidehi R Moore, G Gugiu, TD Lee, R Yip, Y Chen, R Jove, DA Horne, JC Williams. Alkylation of cysteine 468 in Stat3 defines a novel site for therapeutic development. <u>ACS Chem Biol</u> 2011; 6: 432-43
- 12. AC Watkins, B Abungu, M Senthil, Q Lu, D Barlos, L Prescott, FJ Caputo, BK McCracken, DZ Zu, M Bosch-Marce, GL Semenza, EA Deitch, R Feinmann. Partial HIF-1 Deficiency Attenuates Ischemia Reperfusion-Mediated Gut and Lung Injury. Submitted to <u>PNAS</u>
- 13. **M Senthil**, V Trisal, IB Paz, LL Lai. Prediction of the adequacy of lymph node retrieval in colon cancer by hospital type. *Arch Surg* 2010; 145 :840-3.
- 14. A Holt, DW Wagman, M Senthil, S Mckenzie, H Marx, YJ Chen, N Vora, M.D., J Kim. Transarterial Radioembolization with Yttrium-90 for Regional Management of Hepatocellular Cancer: The Early Results of a Non-Transplant Center. <u>Am Surg</u> 2010; 76(10); 1079-83
- 15. M Condon, M Senthil, DZ Xu, L Mason, SU Sheth, Z Spolarics, E Feketova, GW Machiedo, EA Deitch. Intravenous injection of mesenteric lymph produced during hemorrhagic shock decreases RBC deformability in the rat. <u>J Trauma</u> 2011;70:489-95
- 16. J Gao, Y Wang, Q Xing, J Yan, M Senthil, Y Akmal, CM Kowolik, J Kang, DM Lu, M Zhao, Z Lin, CH Cheng, RM Yip, JH Yim. Identification of natural compound by cell-based screening that enhances interferon regulatory factor-1 activity and causes tumor suppression. <u>Mol cancer Ther</u> 2011; 10:1774-83.

- LJ Wrighton, KR O' Bosky, JP Namm, M Senthil. Postoperative management after hepatic resection. <u>J Gastrointest Oncol</u> 2012; 3:41-47.
- ML Wanis, JA Wong, S Rodriguez, JM Wong, B Jabo, A Ashok, SJ Lum, N L Solomon, ME Reeves, CA Garberoglio, M Senthil. Rate of Re-Excision after Breast-Conserving Surgery for Invasive Lobular Carcinoma. <u>Am Surg</u>. 2013 Oct;79(10):1119-22.
- Senthil M. Assessment of clinical benefit and quality of life in patients undergoing cytoreductive surgery and hyperthermic intraperitoneal chemotherapy for management of peritoneal carcinomatosis. <u>J Gastrointest Oncol</u> 2013;4(1):3-4.
- Kim A, Scharf K, Senthil M, Solomon N, Garberoglio C, Lum SS The Prevalence of overweight and obesity in a breast clinic population: consideration for weight loss as a therapeutic intervention. <u>Surg Obes Relat Dis</u> 2014; 10(2):348-53.
- Ling TC, Slater JM, Senthil M, Kazanjian K, Howard F, Garberoglio CA, Slater JD, Yang GY. Surgical and radiation therapy management of recurrent anal melanoma. <u>J Gastrointest Oncol</u> 2014; 5(1): E7-12.
- Tang H, Mirshahidi S, Senthil M, Kazanjian K, Chen CS, Zhang K. Down-regulation of LXR/RXR activation and negative acute phase response pathways in colon adenocarcinoma revealed by proteomics and bioinformatics analysis. <u>Cancer Biomark</u> 2014;4(5):313-24.
- Prada-Villaverde A, Esquivel J, Lowy AM, Markman M, Chua T, Pelz J, Baratti D, Baumgartner JM, Berri R, Bretcha-Boix P, Deraco M, Flores-Ayala G, Glehen O, Gomez-Portilla A, Gonzalez-Moreno S, Goodman M, Halkia E, Kusamura S, Moller M, Passot G, Pocard M, Slati G, Sardi A, Senthil M, Spiliotis J, Torres-Melero J, Turaga K, Trout R. The American Society of Peritoneal Surface Malignancies evaluation of HIPEC with mitomycin C versus oxaliplatin in 539 patients with colon cancer undergoing a complete cytoreductive surgery. *J Surg Oncol* 2014;110(7):779-85.
- 24. Esquivel J, Lowy AM, Markman M, Chua T, Pelz J, Baratti D, Baumgartner JM, Berri R, Bretcha-Boix P, Deraco M, Flores-Ayala G, Glehen O, Gomez-Portilla A, Gonzalez-Moreno S, Goodman M, Halkia E, Kusamura S, Moller M, Passot G, Pocard M, Slati G, Sardi A, Senthil M, Spiliotis J, Torres-Melero J, Turaga K, Trout R. The American Society of Peritoneal Surface Malignancies multi-institution evaluation of the peritoneal surface disease severity score in 1013 patients with colorectal cancer with peritoneal carcinomatosis. <u>Ann Surg Oncol</u> 2014;21(13):4195-201.
- Senthil M, Chaudhary P, Smith DD, Ventura PE, Frankel PH, Pullarkat V, Trisal V. A shortened activated partial thromoboplastin time predicts the risk of catheter associated venous thrombosis in cancer patients. <u>Thromb Res</u> 2014;134(1):165-8.
- Choi AH, Surrusco M, Rodriguez S, Bahjri K, Solomon N, Garberoglio C, Lum S, Senthil M. Extranodal extension on sentinel lymph node dissection; why should we treat it differently? <u>Am</u> <u>Surg</u> 2014:80(10): 932-5.

- Morgan JW, Ji L, Friedman G, Senthil M, Dyke C, Lum SS. Role of the cancer center when using lymph node count as a quality measure for gastric cancer surgery. *JAMA Surg* 2015;50(1):37-43.
- Mclean LS, Watkins CN, Campbell P, Zylsatra D, Rowland L, Amis LH, Scott L, Babb CE, Livingston WJ, Darwanto A, Davis WL Jr, Senthil M, Sowers LC, Brantley E. Aryl hydrocarbon receptor ligand 5F203 induces oxidative stress that triggers DNA damage in human Breast cancer cells. <u>Chem Res Toxicol</u> 2015; 28(5):855-71.
- Choi AH, Blount S, Perez MN, Chavez de Paz CE, Rodriguez SA, Surrusco M, Garberoglio CA, Lum SS, Senthil M. Size of extranodal extension on sentinel lymph node dissection in the American College of Surgeons Oncology Group Z011 trail era. <u>JAMA Surg</u> 2015; 150(12):1141-8.
- Howarth DR, Lum SS, Esquivel P, Garberoglio CA, Senthil M, Solomon NL. Initial results of multigene panel testing for herditary breast and ovarian cancer and lynch syndrome. <u>Am Surg</u> 2015;81(10):914-4.
- Kam K, Lee E, Pairawan S, Anderson K, Cora C, Bae W, Senthil M, Solomon NL, Lum SS. The effect of breast implants on mammogram outcomes. <u>*Am Surg*</u> 2015;81(10):1053-6.
- 32. Nottegar A, Veronese N, Senthil M, Roumen RM, Stubbs B, Choi AH, Verheuvel NC, Solmi M, Pea A, Capelli P, Fassan M, Sergi G, Manzato E, Maruzzo M, Bagant F, Koc M, Eryilmaz MA, Bria E, Carbognin L, Bonetti F, Barbareschi M, Luchini C. Extra-nodal extension of sentinel lymph node metastasis is a marker of poor prognosis in breast cancer patients: A systematic review and an exploratory meta-analysis. *Eur J Surg Oncol* 2016;42(7):919-25.
- Selleck M, Senthil M. Implications of preoperative axillary imaging in the post Z011 era. <u>Gland</u> <u>Surg</u> 2016; 5(3):372-4.
- Pairawan SS, Cora C, Olaya W, Deisch J, Garberoglio R, Solomon N, Senthil M, Garberoglio CA, Lum SS. Percutaneous sentinel lymph node biopsy in breast cancer: results of a phase 1 study. <u>Ann</u> <u>Surg Oncol</u> 2016; 23(10):3330-6.
- 35. Bonev V, De Paz Vilanueva CC, Solomon N, Senthil M, Reeves ME, Garberoglio CA, Lum SS. Is sentinel lymph node dissection necessary in all patients with ductal carcinoma in siti undergoing total mastectomy? <u>Am Surg</u> 2016;82(10):982-984.
- Whelaon MD, Gahagan JV, Sujatha-Bhaskar S, O'Leary MP, Selleck M, Dumitra S, Lee B, Senthil M, Pigazzi A. Is fecal diversion needed in pelvic anastomoses during hyperthermic intraperitoneal chemotherapy (HIPEC)? <u>Ann Surg Oncol</u> 2017;24(8):2122-2128.
- McMullen JRW, Selleck M, Wall NR, Senthil M. Peritoneal Carcinomatosis: limits of diagnosis and the case for liquid biopsy. <u>Oncotarget</u> 2017;8(26): 43481-43490.
- Selleck MJ, Senthil M, Wall NR. Making meaningful clinical use of biomarkers. B*iomark Insights* 2017;19: 12: 1177271917715236.

- Chavez de Paz Villanueva C, Bonev V, Senthil M, Solomon N, Reeves ME, Garberoglio CA, Namm JP, Lum SS. Factors associated with underestimation of invasive cancer in patients with ductal carcinoma in situ: precautions for active surveillance. <u>JAMA Surg</u> 2017:152(11);1007-1014.
- Aljehani MA, Morgan JW, Guthrie LA, Jabo B, Ramadan M, Bahjri K, Lum SS, Selleck M, Reeves ME, Garberoglio C, Senthil M. Association of primary tumor site with mortality in patients receiving bevacizumab and cetuximab in metastatic colorectal cancer. *JAMA Surg* 2018;153(1):60-67.
- 41. Maroney S, de Paz CC, Reeves ME, Garberoglio C, Raskin E, Senthil M, Namm JP, Solomon N. Benefit of surgical resection of the primary tumor in patients undergoing chemotherapy for stage IV colorectal cancer with unresected metatstasis. <u>J Gastrointest Surg</u> 2018; 22(3): 460-466.
- 42. Jabo B, Selleck MJ, Morgan JW, Lum SS, Bahjri KA, Aljehani M, Garberoglio CA, Reeves ME, Namm JP, Solomon NL, Luca F, Dyke C, Senthil M. Comparison of perioperative chemotherapy with adjuvant chemoradiotherapy for resectable gastric cancer: findings from a population based study. <u>J Gastrointest Oncol</u> 2018; 9(1):35-45.
- Babcock BD, Aljehani MA, Jabo B, Choi AH, Morgan JW, Selleck MJ, Luca F, Raskin E, Reeves ME, Garberoglio CA, Lum SS, Senthil M. High- risk stage II colon cancer: Not all risks are created equal. <u>Ann Surg Oncol</u> 2018; 25(7);1980-85.
- 44. Jabo B, Selleck MJ, Morgan JW, Lum SS, Bahjri KA, Aljehani M, Garberoglio CA, Reeves ME, Namm JP, Solomon NL, Luca F, Yang G, Senthil M. Role of lymph node ratio in selection of adjuvant treatment (chemotherapy vs chemoradiation) in patients with resected gastric cancer. <u>J</u> <u>Gastrointest Oncol</u> 2018; 9(4):708-717.
- Luca F. Craigg DK, Senthil M, Selleck MJ, Babcock BD, Reeves ME, Garberoglio CA. Sexual and urinary outcomes in robotic rectal surgery: review of the literature and technical considerations. <u>Updates Surg</u> 2018; 70(3):415-421.
- 46. Babcock BD, Jabo B, Selleck MJ, Reeves ME, Garberoglio CA, Namm J, Kazanjian K, Senthil M. Factors predictive of outcomes after cytoreductive surgery and hyperthermic intraperitoneal chemotherapy for colon and appendiceal carcinomatosis: Single institution experience. Am Surg 2018;84:1575-1579.
- Malek KS, Namm JP, Garberoglio CA, Senthil M, Solomon N, Reeves ME, Lum SS.Attending surgeon variation in operative case length: an opportunity for quality improvement. <u>Am Surg</u> 2018; 84:1595-1599.
- Midthun L, Shaheen S, Deisch J, Senthil M, Tsai J, Hseuh C. Concomitant KRAS and BRAF Mutations in colorectal cancer. <u>J Gastrointest Oncol</u> 2019:10: 577-581.
- Ji L, Selleck MJ, Morgan JW, Xu J, Babcock BD, Shavlik D, Wall NR, Langridge WH, Lum SS, Garberoglio CA, Reeves ME, Solomon N, Namm JP, Senthil M. Gastric cancer peritoneal carcinomatosis risk score. <u>Ann Surg Oncol</u> 2020;27:240-247.

- 50. Dupont E, Tsangaris T, Garcia-Cantu C, Howard-McNatt M, Chiba A, Berger AC, Levine EA, Gass JS, Gallagher K, Lum SS, Martinez RD, Willis AI, Pandya SV, Brown EA, Fenton A, Mendiola A, Murray M, Solomon NL, Senthil M, Ollila DW, Edmonson D, Lazar M, Namm JP, Li F, Butler M, McGowan NE, Herrera ME, Avitan YP, Yoder B, Walters LL, McPartland T, Chagpar AB. Resection of cavity shave margins in stage 0-III breast cancers patients undergoing breast conserving surgery. <u>Ann Surg. 2019</u>. [Epub ahead of print]
- 51. Babcock B, Rodrigues M, Donovan K, Solomon N, Reeves ME, Senthil M, Garberoglio CA, Namm J. Improved survival with immunotherapy but lack of synergistic effect with radiation in stage IV head and neck melanoma. *Am Surg* 2019;85:1118-1124.
- 52. Malek KS, Namm J, Garberoglio CA, **Senthil M**, Solomon N, Reeves ME, Lum SS. Attending surgeon variation in operative case length: an opportunity for quality improvement. *Am Surg* 2019;84:1595-1599.
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- 60. Chicago Consensus Working Group. The Chicago consensus on peritoneal surface malignancies: Management of Appendiceal Neoplasms. Ann Surg Oncol 2020;27:1753-1760; PMID:32285275.
- 61. Chicago Consensus Working Group. The Chicago consensus on peritoneal surface malignancies: Management of Neuroendocrine Tumors. Ann Surg Oncol 2020;27:1788-1792; PMID:32285274.
- 62. Chicago Consensus Working Group. The Chicago consensus on peritoneal surface malignancies: Management of peritoneal mesothelioma. Ann Surg Oncol 2020; 27: 1774-1779; PMID:32285273.

- 63. Chicago Consensus Working Group. The Chicago consensus on peritoneal surface malignancies: Palliative care considerations. Ann Surg Oncol 2020;27:1798-1804; PMID:32285272.
- 64. Chicago Consensus Working Group. The Chicago consensus on peritoneal surface malignancies: Management of Ovarian Neoplasms. Ann Surg Oncol 2020;27:1780-1787; PMID:32285271.
- 65. Chicago Consensus Working Group. The Chicago consensus on peritoneal surface malignancies: Management of colorectal metastases. Ann Surg Oncol 2020;27:1761-1767; PMID:32285270.
- 66. Chicago Consensus Working Group. The Chicago consensus on peritoneal surface malignancies: Management of gastric metastases. Ann Surg Oncol 2020;27:1768-1773; PMID:32285269.
- Chicago Consensus Working Group. The Chicago consensus on peritoneal surface malignancies: Management of desmoplastic round cell tumor, breast, and gastrointestinal stromal tumors. Ann Surg Oncol 2020;27:1793-1797; PMID:32285268.
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- Chicago Consensus Working Group. The Chicago consensus on peritoneal surface malignancies: Management of desmoplastic round cell tumor, breast, and gastrointestinal stromal tumors. Cancer 2020;126:2566-2570; PMID 32282072.
- 72. Chicago Consensus Working Group. The Chicago consensus on peritoneal surface malignancies: Management of colorectal metastases. Cancer 2020;126:2534-2540; PMID: 32282070.
- 73. Chicago Consensus Working Group. The Chicago consensus on peritoneal surface malignancies: Management of Neuroendocrine Tumors. Cancer 2020;126:2561-2565; PMID:32282069.
- 74. Chicago Consensus Working Group. The Chicago consensus on peritoneal surface malignancies: Management of Ovarian Neoplasms. Cancer 2020;126:2553-2560; PMID: 32282068.
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- 79. Choi AH, **Senthil M**. ASO Author reflections: Real- World incidence of peritoneal carcinomatosis after colon resection and why it matters. Ann Surg Oncol 2020; 27:4949; PMID; 32627117
- Howard-McNatt M, Dupont E, Tsangaris T, Garcia-Cantu C, Chiba A, Berger AC, Levine EA, Gass JS, Ollila DW, Chagpar AB; SHAVE2 Group. Impact of cavity Shave margin on margin status in patients with pure ductal carcinoma-in situ. J Am Coll Surg 2021;232:373-378; PMID:33346081
- 81. Choi AH, Ji L, Babcock B, Ramos V, Kwong MLM, Morgan JW, Selleck MJ, Langridge WHR, DeLeon M, Wall NR, Lum S, Pigazzi A, Dayyani F, Senthil M. Peritoneal carcinomatosis in Gastric cancer: Are Hispanics at higher risk? J Surg Oncol 2020;122:1624-1629; PMID:32901938
- 82. Kabagwira J, Gonda A, Vallejos P, Babcock B, Langridge WHR, Senthil M, Wall NR. Optimization of blood handling for plasma extracellular vesicle isolation for clinical studies. J of Nanopart res 202;23;65. https://doi.org/10.1007/s11051-021-05169-6
- 83. Senthil M. Quality -of -life assessment in patients undergoing palliative chemotherapy: Call for action. Ann Surg Oncol 2021; 28:7-8; PMID: 33140253
- 84. Are C, **Senthil M**, Jayaryaman S, Wenos C, Pramesh CS, D'Ugo D, Charles A. Promoting surgical research in global south. Surgery 2021; Mar 9, EPUB; PMID:33712308
- 85. Sullivan B, Qazi A, **Senthil M.** Cancer screening programs in low-and middle-income countries: strategies for success. Ann Surg Onc 2021; July22 EPUB; PMID:34296357.

BOOK CHAPTERS

- M Senthil, BJ Rupani, JH Jabush, EA Deitch. Principles And Practice Of Nutritional Support In Surgical Patients. <u>Acute Care Surgery</u>. Eds. Britt LD, Trunkey DD, Organ CH, Feliciano DV, 2007, Springer Verlag
- 2. **M Senthil**, J Deneve. ACS operative standards Vol II Peritonectomy Procedures. Submitted for Publication 2021.
- 3. Sullivan B, Karalis JD, Wang SC, **Senthil M**. Gastric cancer epidemiology, genetics and screening. Association of Foregut Surgery Textbook. Submitted for publication 2021.

PRESENTATIONS

1. **M Senthil**, DZ Xu, S Zaets, T Berezina, EA Deitch. Infusion of Trauma hemorrhagic Shock mesenteric lymph to normal rats recreates shock induced lung injury and decreases RBC

deformability. Presented at: *Surgical Infection Society*, 24th Annual Meeting, Indianapolis, IN, April 29- May 1, 2004.

- M Senthil, P Ananthakrishanan, BJ Rupani, DZ Xu, EA Deitch. Mesenteric Lymph duct ligation improves survival in splanchnic artery occlusion shock. Poster Presentation: at 27th Annual Shock Society Conference, Novascotia, Canada, June 5-8, 2004
- M Senthil, DZ Xu, S Zaets, T Berezina, EA Deitch.Trauma Hemorrhagic Shock induced lung injury is mediated via the nitric oxide pathway. Presented at: UMD – New Jersey medical school, Department of Surgery, *Trauma Grand Rounds*, June 9, 2004, Newark, NJ.
- 4. BJ **Rupani, M Senthil, E Feketeova, Q Lu, EA Deitch**. Pancreatic duct ligation reduces lymph toxicity, PMN activation and gut permeability following trauma / hemorrhagic shock. *Committee on Trauma* Conference, December, 2004.
- M Senthil, DZ Xu, S Zaets, T Berezina, EA Deitch. Intravenous Injection of Trauma-Hemorrhagic Shock Mesenteric Lymph causes lung injury and requires activation of the inducible nitric oxide synthase pathway. Presented at: 53rd Annual Clinical meeting, New Jersey Chapter, American College of Surgeons, Parsippany, NJ, December 4, 2004.
- M Senthil, DZ Xu, Q Lu, T Berezina, B Abungu, S Zaets, R Feinman, EA Deitch Intravenous Injection of Trauma-Hemorrhagic Shock Mesenteric Lymph causes lung injury that is dependent upon activation of the inducible nitric oxide synthase pathway. Presented at: 2nd Joint meeting, *Surgical Infection society & Surgical Infection Society- Europe*, South Beach Miami, Florida, May 5-7, 2005.
- BJ Rupani, M Senthil, E Feketeova, Q Lu, EA Deitch. Pancreatic duct ligation reduces lymph toxicity, PMN activation and gut permeability following trauma / hemorrhagic shock. *Surgical Infections Society Annual Conference*, Miami, Florida, May 5-7, 2005.
- M Senthil, DZ Xu, Q Lu, T Berezina, B Abungu, S Zaets, R Feinman, EA Deitch. Intravenous Injection of Trauma-Hemorrhagic Shock Mesenteric Lymph causes lung injury that is dependent upon activation of the inducible nitric oxide synthase pathway. *Benjamin Rush Jr. Society Annual Conference*, May 20, 2005
- 9. Vega D, M Senthil, Q Lu, DZ Xu, EA Deitch .Trauma-hemorrhagic shock lymph kills multiple cell types and its toxicity is neutralized by albumin. *Shock Society Conference*, Marco Islands, Florida, June 2005
- M Senthil, M Brown, DZ Xu, Q Lu, E Feketeova, EA.Deitch. Gut- Lymph Hypothesis of SIRS/MODS: Validating studies in a Porcine Model. Presented at *American Association for the* Surgery of Trauma (AAST) 64th meeting, September 22-24th, 2005, Atlanta – Georgia.
- 11. AC Watkins, B Abungu, **M Senthil,** Q Lu, D Barlos, L Prescott, FJ Caputo, BK McCracken, DZ Zu, M Bosch-Marce, GL Semenza, EA Deitch, R Feinmann. Partial HIF-1 Deficiency

Attenuates Ischemia Reperfusion-Mediated Gut and Lung Injury. 29th Annual Conference on Shock. Broomfield, CO. June 3-6, 2006

- 12. **M Senthil.** Molecular staging Is TNM staging obsolete? *Grand Rounds*, UMDNJ Department of Surgery, New Jersey Medical School. Oct 26, 2007
- 13. **M Senthil**, B Mailey, N Vora L leong, H Marx, J Kim. Yttrium 90 Selective internal radiation treatment in the management of hepatic malignancies. *ASCO GI* 2009, SanFrancisco.
- 14. **M Senthil**, YJ Chen , N Vora, H Marx, L Wagman, J Kim M.D. Yttrium 90 Microsphere Selective Internal Radiation Treatment In The Management Of Malignant Liver Tumors. *Society of Surgical Oncology Annual Cancer Symposium* 2009, Phoenix.
- 15. B Mailey, **M Senthil**, A Artinyan, CL Sun, S Bhatia, J Kim. Disparities in Gastric Cancer Outcomes among Asian Ethnicities in the United States. *Society of Surgical Oncology Annual Cancer Symposium* 2009, Phoenix.
- M Senthil, P Ventura, P Frankel, D Smith, V Pullarkat, V Trisal. Shortened Partial thromboplastin predicts the risk for catheter-associated thrombosis in cancer patients. Feb 13-16th, *Pacific coast Surgical Association*, 2010, Maui, Hawaii.
- 17. **M Senthil**, Q Xing, J Yan, R Buettner, D Horne, R Jove, JH Yim. Novel STAT3 inhibitor in the Treatment of Breast Cancer. *Society of Surgical Oncology* 2010, St. Louis. Indianapolis.
- 18. **M Senthil**, V Trisal, IB Paz, LL Lai. Hospital type predicts for the adequacy of lymph node retrieval in colon cancer. *City of Hope GI Multidisciplinary Conference* 2010, Duarte, CA.
- 19. **M Senthil**, V Trisal, IB Paz, LL Lai. Hospital type predicts for the adequacy of lymph node retrieval in colon cancer. Feb 13-16th 2010, *Pacific coast Surgical Association*, Maui, Hawaii.
- 20. A Holt, DW Wagman, M Senthil, S Mckenzie, H Marx, YJ Chen, N Vora, M.D., J Kim. Transarterial Radioembolization with Yttrium-90 for Regional Management of Hepatocellular Cancer: The Early Results of a Non-Transplant Center. *American College of Surgeons- Southern California Chapter*, Jan 2010, Santa Barbara, California.
- 21. M Senthil, Y Akmal, Q Xing, J Yan, JH Yim. A Flavone From Traditional East Asian Natural Extract Inhibits STAT3 and Tumor Growth in Syngeneic Mouse Breast Cancer Model. San Antonio Breast Cancer Symposium, Dec 8-12th, 2010, San Antonio, Texas.
- 22. Y Akmal, M. Senthil, J. Yan, Q. Xing, Y. Wang, G. Somlo, J. Yim. Combination of a Natural Compound (Baicalein) and Paclitaxel Results in Synergistic Apoptosis in Mouse Breast Cancer Cells. *Academic Surgical Congress*, February 1, 2011; Huntington Beach, CA.
- 23. Y Akmal, M Senthil, Q Xing, J Yan, Y Wang, J Yim. Extract from Traditional Chinese Herb Scutellaria baicalensis Suppresses Tumors and Inhibits p-AKT in Mice. ASCO Breast Cancer Symposium; October 1-3, 2010; National Harbor, MD. Presented at Society of Surgical Oncology Annual Cancer Symposium; March 2-5, 2011; San Antonio, TX.

- 24. Y Akmal, Y Wang, **M Senthil**, Q Xing, J Yan, J Gao, and J Yim. Natural Enhancer of IRF-1 Suppresses Gastric Cancer Tumor Growth in vivo. Presented at *Society of Surgical Oncology Annual Cancer Symposium*; March 2-5, 2011; San Antonio, TX.
- 25. ML Wanis, JA Wong, S Rodriguez, JM Wong, B Jabo, A Ashok, SJ Lum, N L Solomon, ME Reeves, CA Garberoglio, M Senthil, MD. Rate of Re-Excision after Breast-Conserving Surgery for Invasive Lobular Carcinoma. Plenary session presentation at *Southern California Chapter ACS*; January 18-20, 2013; Santa Barbara, CA.
- 26. AH Choi, MD, M Surrusco, S Rodriguez, K Bahjri, Naveen Solomon, C Garberoglio, S Lum, M Senthil. Extranodal extension on sentinel lymph node dissection. Why should we treat it differently? Plenary session presentation at *Southern California Chapter ACS*; January 17-19, 2014; Santa Barbara, CA
- 27. MA Aljehani, MSPH, JW. Morgan, D.Ph., LA. Guthrie, MD, B Jabo, MD, MPH, M Ramadan, MPH, K Bahjri, MD, D.Ph., SS Lum, MD, M Selleck, MD, ME Reeves, MD, PhD, C Garberoglio, MD, M Senthil, MD. Primary tumor site and response to bevacizumab and cetuximab in metastatic colorectal cancer: a population based study. Oral presentation at *Pacific Coast surgical association*, February 2016; Indian Wells, CA.
- 28. B Jabo MD, MPH, M Selleck DO, JW. Morgan, D.Ph., C Garberoglio MD, ME Reeves MD, PhD², JP Namm MD², N Solomon MD², SS Lum MD², M Senthil MD. Is adjuvant chemo radiotherapy better than perioperative chemotherapy in gastric cancer? Poster presentation at *Society of Surgical Oncology Annual Cancer Symposium*, March 2016; Seattle, WA.
- 29. BD Babcock, MA Aljehani, B Jabo, AH Choi, JW Morgan, MJ Selleck, F Luca, E Raskin, ME Reeves, CA Garberoglio, SS Lum, M Senthil. High- risk stage II colon cancer: Not all risks are created equal. Oral Presentation at Society of Surgical Oncology Annual Cancer Symposium, March 2018, Chicago, IN
- 30. MLM Kwong, L Denham, MJ Selleck, C Kim, K Kunihira, R Kubba, R Rojas, CA Garberoglio, M Senthil. Response to neoadjuvant therapy is influenced by grade in gastric cancer. Plenary presentation at *Southern California Chapter ACS*, January 2019 at Santa Barbara, CA
- 31. J Liang, MJ Selleck, JW Morgan, J Xu, BD Babcock, D Shavlik, NR Wall, WH Langridge, SS Lum, CA Garberoglio, ME Reeves, N Solomon, JP Namm, M Senthil. Gastric cancer peritoneal carcinomatosis risk score. Oral Presentation at *Regional Therapies conference*, February 2019, Arizona, NV.
- 32. MLM Kwong, A Gonda, MJ Selleck, T Liu, J Kabagwira, B Babcock, C Wang, W Langridge, NR Wall, M Senthil. Unique Plasma Exosomal Protein and miRNA Profiles in Colorectal Cancer Peritoneal Carcinomatosis Compared to Visceral Metastases. Oral Presentation at *Regional Therapies conference*, February 2019, Phoenix, Arizona.
- 33. J Liang, MJ Selleck, JW Morgan, J Xu, BD Babcock, D Shavlik, NR Wall, WH Langridge, SS Lum, CA Garberoglio, ME Reeves, N Solomon, JP Namm, **M Senthil**. Gastric cancer peritoneal

carcinomatosis risk score. Oral Presentation at *Society of Surgical Oncology Annual Cancer Symposium*, March 2019, San Diego, CA.

- 34. MLM Kwong, A Gonda, MJ Selleck, T Liu, J Kabagwira, B Babcock, C Wang, W Langridge, NR Wall, M Senthil, Unique Plasma Exosomal Protein and miRNA Profiles in Colorectal Cancer Peritoneal Carcinomatosis Compared to Visceral Metastases. Selected for Best Basic Science Poster competition at *Society of Surgical Oncology Annual Cancer Symposium*, March 2019, San Diego, CA.
- 35. AH Choi, C Farzaneh, N Kejriwal, A Calidas, K Cordero-Caban, M Roman, MLM Kwong, MJ Selleck, A Pigazzi, D Jafari, M Senthil. Rate of peritoneal carcinomatosis in surgically resected Stage II and III colon cancer. Poster presentation at Society of Surgical Oncology Therapies for Advanced cancers symposium, February 2020, Orlando, Florida
- 36. J Kabagwira, J Chism, R Fuller, VM Andrianarijoana, P Vallejos, M Senthil, NR Wall. Anticancer effects of curcurmin in colon cancer is enhanced in hyperthermic conditions. Poster Presentation at American Association of Cancer research Virtual meeting, 2020.
- 37. MLM Kwong, P Vallejos, VM Andrianarijoana, AH Choi, MJ Selleck, T Liu, J Kabagwira, C Wang, W Langridge, NR Wall, M Senthil. Differential expression of plasma exosomal Let-7 is influenced by KRAS status in colon cancer. Poster Presentation at American Association of Cancer Research Virtual meeting, 2020.
- 38. AH Choi, PA Vallejos, MLM Kwong, J Kabagwira, MJ Selleck, NR Wall, M Senthil. Liquid biopsy in colon cancer utilizing exosomal miRNA biomarkers: an initial analysis. Poster Presentation at American Association of Cancer Research Virtual meeting, 2020.

INVITED LECTURES & PRESENTATIONS

- Management of Colorectal Liver Metastases. Clinical Robotic Surgery Association September 27-29, 2012; Chicago, Il
- 2. Management of colorectal cancer peritoneal carcinomatosis- Is nihilistic approach justified? Southern California Chapter ACS; January 18-20, 2013; Santa Barbara, CA.
- Cytoreductive Surgery and Hyperthermic intraperitoneal chemotherapy Anesthetic Management

 LLUMC Anesthesia Grand Rounds; Feb 20, 2013; Loma Linda CA.
- 4. Management of Colorectal Peritoneal Carcinomatosis Current standard of care Annual Postgraduate convention, Loma Linda School of Medicine; Mar 3, 2013; Loma Linda CA.
- 5. Advances in Breast Cancer Update. DSCSP LLUMC, April 4, 2013; Loma Linda CA.
- Surgical management of peritoneal carcinomatosis Sri Ramachandra Medical College, December 26th 2013;Chennai, India.

- 7. Colorectal metastases– Clinical diagnosis and Management –. Abdominal wall reconstruction Course. University of California Irvine; Feb 2014; Orange, CA.
- 8. Cytoreductive Surgery in colorectal and appendiceal carcinomatosis- Grand rounds, University of California Los Angeles. Sept 2015, Los Angeles, CA.
- 9. Hepatic metastases Management Algorithm Abdominal wall reconstruction Course. University of California Irvine; Feb 2016; Orange, CA.
- 10. Starting a new HIPEC program PSOGI HIPEC course, May 2017, Washington DC,
- 11. Liquid biopsy in peritoneal carcinomatosis Role of Exosomes. Cancer RIP meeting, Loma Linda basic sciences lecture, May 2018, Loma Linda, CA.
- 12. Liquid biopsy in peritoneal carcinomatosis Role of Exosomes. Society of Thermal Medicine annual meeting, May 2018, Tucson, Arizona.
- 13. Cytoreduction and HIPEC: Perioperative management LLUMC Critical Care Grand rounds, November 2019, Loma Linda, CA.
- 14. Peritoneal Carcinomatosis: Time to change diagnostic and treatment paradigms University of California- Irvine- Pathology Seminar series, September 2020, Orange, CA
- 15. Exosomal gene signature in colon cancer John Wayne Cancer Institute, Research conference, September 2020, Santa Monica, CA
- Gaps and Barriers to research in Global South Invited Panelist, American College of Surgeons, Virtual meeting, October 2020
- 17. Peritoneal Carcinomatosis: Time to change the diagnostic and treatment paradigms John Wayne Cancer institute, Grand rounds, November 2020, Santa Monica, CA
- 18. Peritoneal Carcinomatosis: the paradigm shift– University of California, Irvine, Department of Surgery, Grand rounds, January 2021, Orange, CA.
- 19. Updates and challenges in management of colorectal metastases Invited panelist. Society of Interventional Radiology March 2021, Virtual annual meeting

DAVID SERRANO SEWELL

ATTORNEY | OPERATIONAL EXCELLENCE | COMMITMENT TO PUBLIC SERVICE

Attorney with 15+ years of progressive professional experience in developing and executing management structures, advancing strategic initiatives, improving operations, and achieving desired policy outcomes in the public, nonprofit, and private sectors. Core strengths include:

- Ability to analyze, integrate, simplify, and convey complex information in a timely manner
- Unwavering job focus, work ethic, and integrity
- Clear writing, listening, and speaking skills
- Effective communication in cross-functional setting •
- Effective, collaborative consensus builder Motivated self-starter who leads by example •
- Commitment to equity and diversity
- Familiarity working within a complex regulatory environment that is subject to heightened public scrutiny

PROFESSIONAL EXPERIENCE

Office of the Chief Medical Examiner, City and County of San Francisco **Chief Operating Officer**

- Supervise divisions (administrative, investigative, laboratory) in the day-to-day operations of the office.
- Work closely with the Chief Medical Examiner to develop, adopt, and execute on policy initiatives.
- Manage \$13M annual budget and office 42 team members. •
- Coordinate with City Hall (Chief Administrator, Mayor, Police, Public Health) on responses to the press and key stakeholders on office generated data on and on the release of decedent information.

Attorney, Senior Advisor

- Providing legal and governance advice to nonprofit childcare center for underserved communities.
- Advising policy and external engagements for the California Stem Cell Research, Treatments, and Cures Initiative of 2020 on the November ballot.

JLI

Director, Strategic Partnerships

- Led external partnerships and managed budget; identified potential partner organizations and liaised with local nonprofit leaders; executed 15 partnership agreements totaling \$2M.
- Managed partnership cycle for a national engagement strategy highlighting company's anti-illicit trade efforts with key stakeholders in the federal government, local law enforcement, and youth organizations, resulting in lawsuits against patent violators and partnership with a nationally known crime prevention council.

Hospital Council of Northern and Central California **Regional Vice President, San Francisco**

- Led regional office on policy making, external partnerships, and initiatives with public officials (elected, appointed) and organizations (chambers, industry/trade, civic) on behalf of public and private hospital executives to improve health care and achieve favorable outcomes.
- Developed, drafted, and presented policy and budget memorandums for action by executives.
- Defined the scope for and led an operational assessment of a key City healthcare public/private collaborative.
- Led project, budget, and consulting on the Post-Acute Care Collaborative, a public/private group of health • leaders, to develop system improvement recommendations for vulnerable (Medi-Cal, behavioral health) postacute care patients; presented report to San Francisco Health Commission and policymakers.

August 2020–November 2020

July 2019–July 2020

September 2014–June 2019

December 2019-Present

Sourced and managed \$400K project budget, engaged PwC and their multidisciplinary consultants, and led a
15-member task force to evaluate and present an extensive report on the City's emergency department
needs; promoted report to external partners and gained support from influential stakeholders to adopt some
of the report's recommended best practices.

City and County of San Francisco

Deputy City Attorney, San Francisco International Airport

- Directed, advised, and oversaw legal compliance with policy recommendations on business terms, development opportunities, and strategic planning initiatives, with a focus on innovation and revenue generation for the executive team and their staff.
- Developed and reviewed RFPs, evaluated proposals, and advised during the City's approval process (Airport Commission, Board of Supervisors) for numerous projects, including the \$383M Terminal 2 renovation, while balancing both labor and environmental objectives in alignment with public opinion.
- Drafted contracts and agreements in accordance with City regulations and department policy objectives, as well as correspondence to Airport Commission and tenants.

ADDITIONAL RELEVANT EXPERIENC

Port of San Francisco Deputy City Attorney **Office of Mayor Willie L. Brown, Jr.** Special Assistant to the Mayor

Department of Building Inspection Assistant to the Director

EDUCATION

Juris Doctor Golden Gate University School of Law **Bachelor of Arts, Urban Studies** San Francisco State University

CIVIC INVOLVEMENT AND AFFILIATIONS

Board Member, BRAVA! For Women In The Arts

Licensed Attorney, California State Bar Association

Board Member, California Institute for Regenerative Medicine

Judicial Extern, Honorable Maxine Chesney, Judge, United States District Court

Law Review, Ninth Circuit Journal

Member, San Francisco La Raza Lawyers Association

State Commissioner, Medical Board of California

Governance Council Member, Hep B Free Campaign

Board Member, San Francisco State University Foundation

Witkin & CALI Award, Federal Administrative Law

June 2006–August 2014

Harlan Levine, M.D. President, Strategy and Business Ventures City of Hope hlevine@coh.org

PROFILE SUMMARY

Seasoned healthcare executive with extensive management expertise and experience who has a demonstrated track record of achievement at some of the most respected, innovative and highest performing healthcare, consulting and academic institutions in the world.

- Leadership with a focus on achieving cultural transformation
- Experience managing complex organizations with diverse workforces
- Board experience serving start-up, early/mid-stage and nonprofit organizations
- Public company experience managing complex budgets and health care expense
- Proven ability to deliver innovative solutions to meet market needs
- Successfully created, launched and spun-out a startup company to address employer and payer needs
- Experience representing all segments of the health care industry payer, purchaser (employer), provider and consumer; Medicare, Commercial and Medicaid
- Demonstrated success utilizing health care technology to support innovation and drive business growth
- Executive six *sigma* trained

PROFESSIONAL EXPERIENCE

City of Hope, Duarte, CA President, Strategy & Business Ventures Executive Chair, AccessHope Chief Strategy Officer Chief Executive, Medical Foundation	Jan 2018-Present Oct 2019-Present Jan 2017-Dec 2017 Feb 2013-Dec 2017
Anthem/WellPoint, Inc., Indianapolis and Los Angeles Executive Vice President and Leader of Comprehensive Health Solutions	2011-2012
Towers Watson, Los Angeles, CA Health Management, North America Practice Leader Senior Consultant	2008-2011
United Health Group, Minneapolis, MN Optum Health <i>Chief Clinical Officer</i>	2002-2008
PacifiCare of California, Los Angeles, CA Regional Medical Director	2001-2002
Adesso Health Care Technologies, Inc., San Jose Executive Vice President, Business Development Chief Medical Officer	2000-2001
Salick Health Care, Inc./AstraZeneca, Los Angeles, CA President, CEO, Logic Health Systems Chief Operating Officer, SalickNet, Inc. Executive Vice President, Business Development Senior Vice President, Physician and Program Development Vice President, Business Development	1995-2000

Cedars Sinai Medical Foundation, Los Angeles, CA Independent Contractor, Internal Medicine	1995-1997
Alden Medical Group, Los Angeles Co-founder and Vice President	1993-1995
Midway Hospital, Los Angeles, CA Director of Utilization Management, Immune Suppression Unit	1992-1995
Private Practice, Internal Medicine, Los Angeles, CA	1989-1995

EDUCATION

Residency, Internal Medicine, 1987-1989 Cedars Sinai Health System, Los Angeles, CA

Internship, Internal Medicine, 1986-1987 Mount Zion Hospital and Medical Center, San Francisco, CA

Doctor of Medicine (M.D.), 1986 University of California, San Francisco, CA

Bachelor of Arts (A.B.) in Biology, 1982 Harvard College, Cambridge, MA

- Cum laude
- Detur Prize
- Harvard Scholarship

MEDICAL BOARDS/LICENSES

American Board of Internal Medicine, 1989-present Medical Board of California, 1988-present

PAST ACADEMIC APPOINTMENTS

Assistant Clinical Professor of Medicine, University of California, Los Angles, Los Angeles, CA Adjunct Associate Professor, California School of Professional Psychology, Los Angeles, CA

CURRENT BOARD/ADVISORY APPOINTMENTS

AccessHope, Board chair Active Life Scientific, Board member BioScienceLA, Board member and Secretary Cancer Center Business Summit, Advisory Board Health Evolution Forum, New Models of Care Delivery, Work Group Fellow Keck Graduate Institute (KGI), Board of Trustees Quantum Health, Strategic Advisor to the CEO

PAST COMMITTEE/BOARD APPOINTMENTS

Alliance to Make US Healthiest, Expert Panelist America's Health Insurance Plan, Co-chair: Cardio-metabolic Risk Factor Reduction Initiative, Committees: Disease Management California Lutheran University, School of Management, Executive Advisory Council Castlight Health Advisor Disease Management Association of America, Board of Directors GE Ventures/Healthcare Incubations Advisory Board Hope Street Group, Using Innovation to Reinvent Primary Care, Advisor IBM's Watson Healthcare Board of Advisors Los Angeles County Physicians' Standard of Care Committee, Chairman Medtronic Advisor for Population Health Patient Centered Primary Care Collaborative Board of Directors Primary Care Curriculum Committee, Cedars-Sinai Medical Center Spruce Health Advisory Board (tele-dermatology) The Wharton School/Executive Development Program, Advisory Board Member Trapelo Health, Board member Utilization Management; Bio-Ethics Committee, Midway Hospital

PRESENTATIONS/PUBLICATIONS

Deconstructing the Value Equation, <u>ACCC 48th Annual Meeting & Cancer Center Business Summit</u>, scheduled March 2022.

Cancer Centers of Excellence, Association for Value-Based Cancer Care Summit, scheduled October 2021.

Cancer Care and New Carve-out Cancer Care Programs, <u>Association for Value-Based Cancer Care Summit</u>, scheduled October 2021.

The Complexity of Value-Based Contracting in Oncology, <u>McKesson Biopharma Partner Summit</u>, scheduled September 2021.

Defining & Delivering Value, Cal Lutheran Executive Roundtable, August 2021.

The Role & Opportunity Centers of Excellence (COEs) Panel, CareCentral/Oncology Product Steering Committee (Employer Direct Healthcare), August 2021.

Enabling Remote Access to Cancer Care Resources through AccessHope, <u>Healthcare Leadership Council Webinar: The</u> <u>Newest Frontier of Health Equity</u>, June 2021.

Democratizing Access to Cancer Care with AccessHope, <u>Willis Towers Watson's Cure for the Common Co. Podcast</u>, June 2021.

Prioritizing Health and Wellbeing Will Serve as a Competitive Advantage, <u>Personalization Outbreak Podcast #33</u>, June 2021.

Panel Moderator: City of Hope Professor Spotlight Presentations and Roundtable, <u>LA Bioscience Ecosystem Summit</u> (<u>LABEST</u>), May 2021.

The Growing Impact of Genetic Testing and Treatments on Care Quality and Cost, <u>Business Group on Health-Annual</u> <u>Conference</u>, May 2021.

Progressive Employers Addressing Disparities in Cancer Care for Their Employees: Unlock Access to Leading-Edge Cancer Expertise, <u>ACCC 47th Annual Meeting & Cancer Center Business Summit</u>, March 2021.

How Progressive Employers are Addressing Emerging Trends and Challenges in Cancer Care, <u>Business Group on Health-Cost & Delivery Institute Web Meeting</u>, March 2021.

Health Experts Talk Vaccines: Returning Sooner and Safer – What You Need to Know, Orange County Business Council, December 2020.

Joseph Alvarnas, MD, and Harlan Levine, MD, *Employers: Innovators and Partners in the Delivery of More Effective and Equitable Cancer Care*, AJMC Evidence-Based Oncology, December 2020, Vol. 26, No. 10, Special Issue: Employers and Cancer.

Mary Caffrey, with Harlan Levine, MD, *Reimagining Cancer Care Delivery-and Serving Employers-Through Access Hope*, AJMC Evidence-Based Oncology, December 2020, Vol. 26, No. 10, Special Issue: Employers and Cancer.

Matthew Gavidia summary of Presentation by Harlan Levine, MD, *How Education, Access Can Optimize Value-Based Cancer Care Delivery*, AJMC Evidence-Based Oncology, December 2020, Vol. 26, No. 9, Special Issue, PCOC 2020 Meeting Recap.

Employer Perspectives on Cancer Care, Association of Value-Based Cancer Care, October 2020

Panel: Cancer Center of Excellence and Integrated Health Delivery System Perspectives on Cancer Care, <u>Association of</u> <u>Value-Based Cancer Care</u>, October 2020

Changing How Leading-Edge Cancer Center Expertise Is Delivered: City of Hope Responds to Progressive Employers, NCCN Annual Employer Forum, October 2020

Optimizing the Impact of the Cancer Revolution: Reimagining Care Management to Harness the Value of Discovery, <u>AJMC/Patient-Centered Oncology Care</u>, September 2020

Panel Moderator: Defining the Need for Patient Navigation, Navigating Regenerative Medicine Roundtable, Presented by CIRM and the CURA Foundation, San Francisco, CA, January 2020

Digital Transformation Transformed – How Leading Payer-Providers are Taking Control of their Own Future, <u>W2O 6th</u> <u>Annual Digital Health Luncheon</u>, San Francisco, CA, January 2020

What's New in Cancer and is Everyone Benefitting? LA5 Rotary Club, Los Angeles, CA, January 2020

The Expansion and Transformation of City of Hope, USC MBA Students, Los Angeles, CA, December 2019

The ABC's of Healthcare Technology (panel), HLTH, Las Vegas, NV, October 2019

Planning for the Cancer Tsunami: What Can Employers Do? A Systems Approach to Employer Action, Mercer Health Innovation Advisory Board, Minneapolis, MN, June 2019

Value-Based CAR-T Cell Therapy, Association of Dedicated Cancer Centers Executive Meeting, Santa Monica, CA, June 2019

Perspectives from City of Hope, <u>Healthcare Leadership Council</u> State of the Healthcare Workforce Panel, Washington, DC, October 2018

Webinar: The Future of Oncology Care – What Employers Need to Know, National Business Group on Health, August 2018.

City of Hope's experts help patients navigate their complex cancer journey, <u>Pacific Business Group on Health</u>, San Francisco, CA, May 2018.

Future of Employer Oncology Management, Kaiser Permanente Employer Innovation Council, Boston, MA, April 2018

How to continue to deliver high value care in the era of price sensitivity, <u>West Coast Healthcare Executive Summit</u>, San Francisco, CA, April 2018.

Optimizing Employer Oncology Benefits through Collaboration, <u>Conference Board – 18th Annual Employee Health Care</u> <u>Conference</u>, San Diego, CA, March 2018.

Innovation in Cancer Care Delivery (panel Moderator), <u>ACCC 44th Annual Meeting & Cancer Center Business Summit</u>, Washington, DC, March 2018.

Provider Solutions: Optimizing Employer Oncology Benefits through Collaboration, <u>Pacific Business Group on Health</u> <u>Employers Forum</u>, San Francisco, CA, January 2018.

The Cancer Revolution – Navigating the Future, <u>National Business Group on Health: Institute on Health Care Costs and</u> <u>Solutions</u>, Washington, DC, January 2018. The Future of Value-Based Care (Panel), US News Healthcare of Tomorrow, Washington, DC, November 2017.

Healthcare Debate: An Industry Insider's Perspective, <u>Harvard Alumni in Health Care</u>, March 2017.

Why is cancer distinct from other health challenges, and why must it be addressed differently? <u>Employer Health</u> <u>Innovation Roundtable-Winter Meeting</u>, Menlo Park, CA, March 2017.

Impact of Health Reform on Providers and Patients (Panel), <u>Cancer Center Business Summit</u>, Las Vegas, NV, February 2017.

Cancer is distinct from other health challenges and must be addressed differently, <u>Silicon Valley Employers Forum</u>, Mountain View, CA, January 2017.

Focused Factories: The Advantages of the Specialized Approach (Panel), <u>US News Healthcare of Tomorrow</u>, Washington, DC, November 2016.

Physician Executives Perspectives: Strategies for Provider Engagement (Panel), <u>Evolent Health Partner Summit,</u> Phoenix, AZ, October 2016.

Breaking Through in Cancer Therapy: What Do The Next Five Years Promise, Optum Forum2016, August 2016.

Innovators in Healthcare Delivery (Panel), ACG 101, Westlake Village, CA, August 2016.

Nardi, Wolfson, Rosen, Diasio, Gerson, Parker, Alvarnas, Levine, Fong, Weisenburger, Fitzgerald, Egan, Stranford, Carlson, and Benz, *Value, Access and Cost of Cancer Care Delivery at Academic Medical Centers*, JNCCN, Vol. 14, No. 7, July 2016.

6th Annual Healthcare Leadership Forum (Panel), Los Angeles Business Journal, Los Angeles, CA, April 2016.

Oncology's Role in Population Health, Cancer Center Business Summit, February 2016.

Master Class in Value (Panel), The Hospital of Tomorrow, US News, Washington DC, October 2015.

Impact of Health Reform on Employer Health, Antelope Valley Board of Trade Health Summit, Lancaster, CA, July 2014.

Business Health Agenda 2013, Employer Panel: Strategies, Tools and Resources to Help Employees Navigate Healthcare in Times of Need, <u>National Business Group on Health</u>, Moderator/Presenter, Denver CO March 2013.

Transforming Healthcare, <u>IBM Watson User Conference</u>, Austin, TX, November 2012.

Consumer Value Through Delivery System Partnerships, <u>Hospital CEO Forum</u>, Healthcare Institute, Chicago, IL, November 2012.

General Session Panel: Insights Into Commercial ACO Strategies, <u>CAPG/IHA's National Accountable Care Organization</u> <u>Congress</u>, Los Angeles, CA, October, 2012.

General Session Panel Moderator: A Systems-based Approach to Cost and Quality, <u>Patient Centered Primary Care</u> <u>Collaborative Fall Conference: The Journey to a Primary Care Medical Home</u>, Chicago, IL, October, 2012.

Consumer Value Through Delivery System Partnerships, <u>Dignity Health 2012 Physician Alignment Symposium</u>, Las Vegas, NV, October 2012.

Watson and Oncology, Milken Institute Celebration of Science, Washington DC, September 2012.

Raskas, Latts, Hummel, Wenners, Levine and Nussbaum, *Early Results Show WellPoint's Patient Centered Medical Home Pilots Have Met Some Goals for Cost, Utilization and Quality,* Health Affairs, vol. 31, no. 9, September 2012.

General Session Panel, Payer Provider Partnerships, McKesson Executive Leadership Summit, August, 2012.

General Session Panel: Accelerating Coverage, Reimbursement and Adoption: Payer Perspective, Biotech Conference-<u>Kleiner Perkins Caufield and Byers, Laguna Beach, CA, October 2011.</u>

The Convergence of Behavioral Economics and Healthcare, Ignite Symposium, Washington DC, September, 2011.

Nine Ways to Engage Employees in Healthcare, <u>Council on Employee Benefits—Los Angeles Region</u>, Los Angeles, CA, March 2011.

Health Sciences Expert Panel, Kleiner Perkins Caufield and Byers CEO Conference, Carmel, CA, September, 2010.

Healthy Lifestyles Programs: Cost Effective Tactics to Optimize Value, <u>National Business Group on Health</u>, Washington DC, June 2010.

Behavioral Economics: Does It Change How We Think About Workplace Benefits, <u>Southwest Benefits Association</u>, New Orleans, LA, May 2010.

Behavioral Economics: Does It Change How We Think About Workplace Benefits, <u>Western Benefits & Pension</u> <u>Conference</u>, Seattle, WA, Nov. 2009.

How to Create a Personalized Integrated Health Management Solution, Benefits & Compensation Solution, October/November 2007.

A Medical Director's Perspective on Early Breast Cancer, Managed Care, Volume 15, No. 8, Supplement 6, August 2006.

Disease Management in the Age of Consumerism, <u>Disease Management Congress Annual Meeting</u>, Orlando, FLA, Sept. 2005.

Consumerism: Expanding the Role of Personal Health Services, <u>AHIP National Conference</u>, Las Vegas, June 2005.

Predictive Modeling in Disease Management, co-presenter, DMAA International Predictive Modeling Audio-conference, April, 2005.