

**2018 CSBC PS-ON Annual Investigators Meeting: Guide to Poster Session A (on Tuesday, Sept 25) and Session B (on Wednesday, Sept 26)**

Poster #	Author List (Presenting Author underlined)	Primary Institute	Abstract title
<b>Session A (Tuesday, September 25)</b>			
<b>Cellular and Extracellular Interactions in Tumor Evolution, Heterogeneity and Metastasis</b>			
A01	<u>Ziemys, Arturas</u> ; Yokoi, Kenji; Kai, Megumi; Liu, Yan Ting; Kojic, Milos; Simic, Vladimir; Milosevic, Miljan; Holder, Ashley; Ferrari, Mauro	Houston Methodist Research Institute	Progression-dependent transport heterogeneity of breast cancer liver metastases as a factor in therapeutic resistance
A02	Bu, Pengcheng; Chen, Kai-Yuan; <u>Shen, Xiling</u>	Duke University	Fructose Fuels Metabolic and Epigenetic Reprogramming of Liver Metastasis
A03	<u>Cao, Xuan</u> ; Moeendarbary, Emad; Kamm, Roger; Shenoy, Vivek	Massachusetts Institute of Technology	Cell-cell junction integrity and adaptive cellular contraction regulate gap formation in endothelial network
A04	<u>Lin, Chun-Lin</u> ; Tan, Xi; Hung, Chia-Nung; Osmulski, Pawel A; Chen, Meizhen; Gaczynska, Maria E.; Chen, Chun-Liang; Liss, Michael A.; Huang, Tim.	University of Texas Health Science Center at San Antonio	Single-cell analyses reveal enhanced OXPHOS transcription for adaptation responses of prostate cancer cells in circulation
A05	<u>Usman Ghani</u> , Allison K. Simi, Andreas P. Kourouklis, Siyang Han, Emily A. Margolis, Celeste M. Nelson, and Joe Tien	Boston University	A Model of Invasion and Intravasation from a Solid Breast Tumor into a Micro-Lymphatic Vessel
A06	<u>Herring, Charles</u> ; Scurrah, Cherie; McKinley, Eliot; Kumar, Manu; Simmons, Alan; Banerjee, Amrita; Li, Wei; Lauffenburger, Douglas; Coffey, Robert; Lau, Ken	MIT/Vanderbilt	Ensemble trajectory analysis of cell-state transition pathways in colonic tumors
A07	<u>Ferruzzi, Jacopo</u> ; Koehler, Stephan A.; Kim, Jessica; Roblyer, Darren; Fredberg, Jeffrey J.; Zaman, Muhammad H.	Harvard	Extracellular Matrix Density Triggers Phase Transition in Breast Cancer Spheroids
A08	<u>Hayford, Corey</u> ; Paudel, Bishal; Harris, Leonard; Tyson, Darren; Al'Khafaji, Aziz; Johnson, Kaitlyn; Brock, Amy; Quaranta, Vito	Vanderbilt University	Phenotypic Drift as a Survival Strategy in BRAF-mutant Melanoma
A09	Joe Tien, <u>Celeste M. Nelson</u> , Derek C. Radisky, Kamil L. Ekinci, and Aziza Nassar	Boston University	Engineering Invasive Human Breast Tumors with Integrated Capillaries and Lymphatics
A10	<u>Russell, Shonagh</u> ; Xu, Liping; Kam, Yoonseok; Damaghi, Mehdi; Lopez, Alex S.; Abrahams, Dominique; Epstein, Tamir; Ruiz, Epifanio; Lloyd, Mark C.; Wojtkowiak, Jonathan W.; Bui, Marylin; Gillies, Robert	Moffitt Cancer Center	Acidification or Glycolysis: Which came first?
A11	<u>Kourouklis, Andreas</u> ; Siyang, Han; Allison, Simi; Tien, Joe; Nelson, Celeste;	Princeton University	Interstitial fluid pressure signals through YAP to direct invasion of engineered human breast tumors
A12	<u>Kim, Jun</u> ; Sage, Julien	Stanford University	Modeling the role of the atypical Notch ligand Dll3 in small cell lung cancer
A13	<u>Lehman, Jonathan</u> ; Leelatian, Nalin; Harris, Bradford; Hoeksema, Megan; Yong, Zoug; Staub, Jeremy; Senosain, Maria; Doxie, Deon; Irish, Jonathan; Massion, Pierre	Vanderbilt University	Novel chemotherapy stable subpopulations are conserved across multiple Small Cell Lung Carcinoma Patient Derived Xenograft Models.
A14	Robert VanderVelde, Nara Yoon, Jakob Scott and <u>Andriy Marusyk</u>	Moffitt Cancer Center	Deciphering evolution of resistance to targeted therapies
A15	<u>Tan, Matthew L.</u> ; Druso, Joseph E.; Shimpi, Adrian A.; Wittmann, Katharina; Reizes, Ofer; Rubin, Mark A.; Inghirami, Giorgio; Hopkins, Benjamin D.; Cantley, Lewis C.; Fischbach, Claudia	Cornell University	Obesity-Associated Mammary Extracellular Matrix Promotes Breast Cancer Stem Cell Characteristics
A16	Tyler Risom, Ellen Langer, Kristof Torkenczy, Andrew Adey, Joe Gray and <u>Rosalie Sears</u>	Oregon Health & Science University	Understanding intratumoral heterogeneity and overcoming cellular plasticity-mediated therapeutic resistance
<b>Computational Approaches to Cancer</b>			
A17	Katherine A. Aiello, Sri Priya Ponnappalli, and <u>Orly Alter</u>	University of Utah	Mathematically Universal and Biologically Consistent Astrocytoma Genotype Encodes for Transformation and Predicts Survival Phenotype
A18	Katherine A. Aiello, <u>Matthew W. Bradley</u> , Rui Luo, Sri Priya Ponnappalli, <u>Heidi A. Hanson</u> and Orly Alter	University of Utah	GSVD- and Tensor GSVD-Uncovered Patterns of DNA Copy-Number Alterations Predict Survival in Response to Platinum in Adenocarcinomas
A19	<u>Amrhein, Lisa</u> ; Theis, Fabian J. ; Janes, Kevin A.: Fuchs, Christiane	University of Virginia	Stochastic Profiling for mRNA Seq Data
A20	Alokendra K. Ghosh, K. K. Sreeja, Bin Wu, Zachary Graber, Tobias Baumgart, Wei Guo, <u>Ravi Radhakrishnan</u>	University of Pennsylvania	Multiscale Biophysical Modeling of Receptor Activation, Signaling and Trafficking in Cancer
A21	<u>Hongxu Ding</u> , Eugene F. Douglass Jr., Adam M. Sonabend, Angeliki Mela, Sayantan Bose, Christian Gonzalez, Peter D. Canoll, Peter A. Sims, Mariano J. Alvarez and Andrea Califano	Columbia University	Quantitative Assessment of Protein Activity in Orphan Tissues and Single Cells Using the metaVIPER Algorithm

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A22	<u>Griffiths, Jason</u> ; Chi, Feng; Bild, Andrea; Adler, Fred	University of Utah	Quantifying the development of resistant phenotypes and therapeutic strategies to avoid them.
A23	<u>Ghosh, Alokendra</u> ; Radhakrishnan, Ravi	University of Pennsylvania	Heterogeneous multi-scale framework for cancer systems models and clinical applications
A24	<u>Kochen, Michael</u> ; Lopez, Carlos	Vanderbilt	Mechanistic Hypothesis Generation and Multimodel Inference for Cancer Signaling Networks
A25	Schau, Geoffrey F.; Dane, Mark A; Thibault, Guillaume; Gray, Joe W. ; Heiser, Laura M. ; <u>Chang, Young Hwan</u>	Oregon Health and Science University	Variational Autoencoding Phenotypic Response to Microenvironment Perturbation
A26	<u>Lubbock, Alexander L. R.</u> ; Harris, Leonard A.; Quaranta, Vito; Tyson, Darren R.; Lopez, Carlos F.	Vanderbilt University	Rapid insights from high throughput proliferation datasets using Thunor
A27	<u>Erickson, Keesha</u> ; Rukhlenko, Oleksii; Shahinuzzman, Md; Slavkova, Kalina; Lin, Yen Ting; Suderman, Ryan; Stites, Edward; Anghel, Marian; Posner, Richard; Barua, Dipak; Kholodenko, Boris; Hlavacek, William	LANL	Prediction of cell line-specific recruitment of signaling proteins to the insulin-like growth factor 1 receptor
A28	<u>Anne Shim</u> , Luay Almassalha, Hiroaki Matusda, Rikkert J. Nap, Vadim Backman, Igal Szleifer	Massachusetts Institute of Technology	Gene expression is regulated by crowding dynamics in the nuclear nanoenvironment
A29	Walker, Rachel; <u>Enderling, Heiko</u>	Moffitt Cancer Center	Immune interconnectivity of anatomically distant tumors as a potential mediator of systemic responses to local therapy
A30	<u>Chen, George</u> ; Yan, Huaming; Pervolarakis, Nicholas; Lee, Mary; Wang, Kehui; Puttock, Eric; Tifrea, Delia; Kessenbrock, Kai; Edwards, Robert A; Hughes, Christopher CW; Lander, Arthur; Lowengrub, John S; Waterman, MarianL	University of California, Irvine	Linking Wnt to patterns of metabolism in colon cancer using math models and single cell sequencing
A31	<u>Katarzyna Rejniak</u>	Vanderbilt PSOP	In silico tumor organoids: delineation of microenvironmental and drug effects
<b>Molecular Networks Driving Tumor Phenotype</b>			
A32	<u>Laise, Pasquale</u> ; Maurer, H. Carlo; Elayda, Ela; , Tuveson David; Olive, Kenneth P.; Califano, Andrea	Columbia University	A systematic analysis of regulatory networks underlying pancreatic ductal adenocarcinoma reveals new molecular subtypes
A33	<u>Majumder, Anurima</u> ; Boutcheung-Djidjou, Martial; Kim, Jae-Young; Sumi, Natalia; Rix, Uwe; Haura, Eric B.	H. Lee Moffitt Cancer Center	Cancer cell induced activation of associated fibroblasts is PDGFR-mediated
A34	Shambhavi Singh, Lixin Wang, Kathy Repich, Dylan Schaff, Jennifer Harvey and <u>Kevin A. Janes</u>	University of Virginia	Profiling Heterogeneous Gene-expression States in Luminal Breast Tumors at Diagnosis
A35	<u>Gerosa, Luca</u> ; Sanchez, Gabriela, Chidley, Chris; Muhlich, Jeremy; Sang, Kyun Lim; Chen, Jia-Yun; Sorger, Peter K.	Harvard Medical School	Predictive understanding of adaptive resistance in BRAF-mutant cancers
A36	Haimei Chen, <u>Friederike Hoeg</u> , Eric Wagner, Wenan Qiang, Massimo Cristofanilli, Thomas V. O'Halloran	Northwestern University	Inorganic Phenotypes Distinguishing Tumorigenic and Nontumorigenic Breast Cancer
A37	<u>Zhong Chen</u> , Dayong Wu, Jennifer M. Thomas-Ahner, Changxue Lu, Pei Zhao, Qingfu Zhang, Connor Geraghty, Pearly S. Yan, William Hankey, Benjamin Sunkel, Xiaolong Cheng, Emmanuel S. Antonarakis, Qi-En Wang, Zhihua Liu, Tim H.-M. Huang, Victor X. Jin, Steven K. Clinton, Jun Luo, Jiaoti Huang, Qianben Wang	Duke University	Diverse AR-V7 cistromes in castration-resistant prostate cancer are governed by HoxB13
A38	<u>Atanasova, Mariya</u> ; Lauffenburger, Douglas; Sorger, Peter	Harvard Medical School	Drug-induced receptor tyrosine kinase overexpression drives resistance to vemurafenib in melanoma cell lines
A39	Archer, Tenley C; <u>Ehrenberger, Tobias</u> ; Mundt, Filip; Gold, Maxwell P; Krug, Karsten; Mah, Clarence; LeNail, Alexander; Ramamoorthy, Divya; Mertins, Philipp; Mani, D R; Zhang, Hailei; Gillette, Michael A; Clauser, Karl; Noble, Michael; Tang, Lauren C; Mahoney, Elizabeth L; Daniel, Colin; François, Jessica Pierre; Silterra, Jacob; Jensen, James; Tamayo, Pablo; Korshunov, Andrey; Pfister, Stefan M; Kool, Marcel; Northcott, Paul A; Sears, Rosalie C; Lipton, Jonathan; Carr, Steven A; Mesirov, Jill P; Pomeroy, Scott L; Fraenkel, Ernest	MIT	Proteomics , post-translational modifications, and integrative analyses reveal heterogeneity of molecular mechanisms within medulloblastoma subgroups
A40	<u>Kim, Minkyu</u> ; Kim, Kyumin; Soucheray, Margaret; Swaney, Danielle; Zheng, Fan; Park, Jisoo; Tutuncuoglu, Beril; Gordon, David; O'Leary, Patrick; Coppe, Jean-Philippe; van 't Veer, Laura; Ashworth, Alan; Ideker, Trey; Krogan, Nevan	University of California San Francisco	Analyzing the Physical and Functional Protein Interaction Landscape of Breast Cancer

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A41	<u>Chang, Jeremy</u> ; Wu, Lani; Altschuler, Steven; Krogan, Nevan	UCSF	Susceptibility to targeted therapy depends on cell cycle phase
A42	<u>Mehdi Bouhaddou</u> , Neil Bholra, Margaret Soucheray, Rachel O'Keefe, Toni Brand, Nevan J Krogan, Danielle L Swaney, Jennifer Grandis	UCSF	Comprehensive Proteomic Analyses of Cetuximab Treatment in Head and Neck Cancer Reveals Mechanisms of Resistance
<b>Nuclear Structure and Function in Cancer Biology</b>			
A43	Andrew C. Tamashunas, Vincent J. Tocco, James H. Matthews, Hendrik Luesch, Jonathan D. Licht, Richard B. Dickinson, <u>Tanmay P. Lele</u>	Chicago Region PSOC	Abnormal Nuclear Morphologies in Cancer: Role of Chromatin Regulators
A44	Biggs, Ron; Stephens, Andrew, Banigan, Ed; Adam, Adam; Goldman, Robert; <u>Marko John F.</u>	Northwestern University	Micromechanics and Structure of Metaphase Chromosomes and the Cell Nucleus
A45	<u>Richard A. Bennett</u> , Aditya Bele, Christine M. Will, Eliza C. Small, Behnam Nabet, Rajarshi Ghosh, Adrian Grzybowski, Tao Yu, Qiao Zhang, Alberto Riva, Greta M. Wodarczyk, Vadim Backman, Tanmay Lele, George C. Schatz, Alex Ruthenberg, Jan Liphardt, Jonathan D. Licht	Chicago Region Physical Science-Oncology Center	A mutation in the core of histone H2B represents a new class of oncogenic drivers
A46	<u>Shah, Pragya</u> ; Lammerding, Jan	Weill Institute of Cell and Molecular Biology, Cornell University	Elucidating the impact of cancer cell migration through confined environments on DNA damage and genomic instability.
A47	<u>Sheng, Jianting</u> ; Yeung,Tsz-Lun; Mok,Samuel C; Wong,Stephen TC	Houston Methodist Research Institute	Systematic identification of exosome-mediated crosstalk in ovarian cancer
A48	<u>Huaiying Zhang</u> , Michel Liu , Chanat Aonbangkhen, Robert Dilley, Roger A. Greenberg3, 4, David M. Chenoweth, Michael A. Lampson	University of Pennsylvania	Optogenetic control of nuclear body assembly in telomerase-free cancer cells
A49	<u>Giorgio Gaglia</u> , Rumana Rashid, Gaurav Joshi, Luke Whitesell, Kris Sarosiek, Susan Lindquist and Sandro Santagata	Harvard Medical School	An unexpected relationship between HSF1 foci dynamics and HSF1 function in cancer.
A50	Bonin, Keith; Smelser, Amanda; Salvador Moreno, Naike; Holzwarth, George; Segall, Dave; <u>Vidi, Pierre-Alexandre</u>	Wake Forest University Health Sciences	Mapping chromatin motions using structured illumination reveals loss of genomic cohesion in response to DNA damage
<b>Translational Applications of Physical Oncology and Systems Biology</b>			
A51	<u>Raghavan, Srivatsan</u> ; Stockslager, Max; Mu, L. Mary; Navia, Andrew; Winter, Peter; Ng, Raymond; Kalekar, Radha; O'Connell, David; Araya, Joshua; Tseng, Moony; Camarda, Nicholas; Keskula, Paula; Gill, Shubhroz; Sicinska, Ewa; Brais, Lauren; Reilly, Emma; Carter, Scott; Clemons, Paul; Schreiber, Stuart; Boehm, Jesse; Aguirre, Andrew; Wolpin, Brian; Shalek, Alex; Manalis, Scott; Hahn, William C.	Massachusetts Institute of Technology	Pancreatic Tumor Organoids for Functional Precision Medicine
A52	<u>Reynolds, Daniel</u> ; Kroll, Katharina; de Lazaro, Irene; Mooney, David; Lewis, Jennifer	Harvard University	3D-printed vascularized murine model as a tool for developing novel immunotherapies
A53	<u>Lei Huang</u> ; Sarah Garrett Injac;Kemi Cui1; Frank Braun; Qi Lin; Yuchen Du;Huiyuan Zhang;Mari Kogiso;Holly Lindsay; Sibozhao; Patricia Baxter;Adesina Adekunle;Tsz-Kwong Man;Hong Zhao;Xiao-Nan Li; Ching C.Lau; Stephen T.C. Wong	Houston Methodist Research Institute	A systems biology driven drug-repositioning strategy identifies digoxin as a potential treatment for Groups 3 and 4 medulloblastoma
A54	<u>Winter, Peter</u> ; Murakami, Mark; Navia, Andrew; Gupta, Alejandro; Shigemori, Kay; Calistri, Nicholas; Atta, Lyla; Van Scoyk, Alex; Liu, Huiyun; Kimmerling, Robert; Stevens, Mark; Weinstock, David; Shalek, Alex; Manalis, Scott	Massachusetts Institute of Technology	Linked single-cell biophysical and transcriptional profiles resolve heterogeneity and mechanisms of in vivo resistance in primary human tumors
A55	<u>Nizzero, Sara</u> ; Tong, Si Qi; Goel, Shreya; Li, Feng; Zhang, Guodong; Li, Zheng; Shen, Haifa; Blanco, Elvin; Ferrari, Mauro	Houston Methodist Research Institute	Synergistic interaction of physics and biology modulate biological barriers in the liver.
A56	<u>Meyer, Christian</u> ; Wooten, David; Paudel, B. Bishal; Bauer, Joshua; Hardeman, Keisha; Westover, David; Lovly, Christine; Harris, Leonard; Tyson, Darren; Quaranta, Vito,	Vanderbilt	Quantifying drug combination synergy along potency and efficacy axes
A57	<u>Leland S. Hu</u> , Nathan Gaw, Hyunsoo Yoon, Jennifer M. Eschbacher, Leslie C. Baxter, Kris A. Smith, Peter Nakaji, John P. Karis, Paula Whitmire, Andrea Hawkins-Daarud, Kyle Singleton, Pamela Jackson, Susan Massey, Bernard R. Bendok, J. Ross Mitchell, Teresa Wu, Nhan L. Tran, Joshua B. Rubin, Kristin R. Swanson, Jing Li	Mayo Clinic	Impact of sex-differences on MRI and genetic correlations in Glioblastoma

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<b>Session B (Wednesday, Sept 26)</b>			
<b>Cellular and Extracellular Interactions in Tumor Evolution, Heterogeneity and Metastasis</b>			
B01	<u>Buschhaus, Johanna</u> ; Luo, Ming; Burnett, Joseph; Sun Duxin; Wicha, Max; and Luker, Gary	University of Michigan	Metabolic Status and Adaptability of Breast Cancer Stem Cells
B02	<u>Martial Boutchueng-Djidjou</u> , Jae-Young Kim, Ki-Cheol Han, Gabriela Wright, Bin Fang, John Koomen, Lily.L. Remsing Rix, Uwe Rix, Eric B. Haura.	Moffitt Cancer Research Center	A quantitative proteomic survey reveals signaling alterations and oxidative stress regulation in lung cancer cells driven by stromal fibroblasts.
B03	Jessica L. Riesterer, Koei Chin, Kevin Loftis, Melissa Williams, Kevin Stoltz, <u>Joe W. Gray</u>	Oregon Health and Sciences University	Exploring Tumor Architecture from Millimeters to Nanometers
B04	Eduardo Torre, Ben Emert, <u>Arjun Raj</u>	University of Pennsylvania	Single cell analysis of therapy resistance in cancer
B05	<u>W. Gregory Sawyer</u> , Padraic P Levings, Colin J. Anderson, Steven C. Ghivizanni, C. Parker Gibbs	Northwestern	3D Tumor Biofabrication
B06	<u>Nathan S. Swami</u> , David F. Kashatus, Gustavo Rohde and Todd Bauer	University of Virginia	Stratifying mitochondrial heterogeneity of pancreatic tumors by single-cell impedance cytometry
B07	<u>Bae, Song Yi</u> ; Meyer, Aaron S.	University of California, Los Angeles	Identifying key signaling network in AXL-driven chemotherapy resistance
B08	<u>Sydney Shaffer</u> , Benjamin L. Emert, Ann E. Sizemore, Rohit Gupte, Eduardo Torre, Danielle S. Bassett, Arjun Raj	University of Pennsylvania	Memory sequencing reveals heritable single cell gene expression programs associated with distinct cellular behaviors
B09	<u>Conrad, Christina</u> ; Gray, Kelsey M.; Stroka, Kimberly M.; Rizvi, Imran; Scarcelli, Giuliano	Fischell Department of Bioengineering, The University of Maryland	Evaluating Ovarian Cancer 3D Nodule Mechanical Properties using Brillouin Confocal Microscopy
B10	<u>Gatenbee, Chandler</u> ; Tessi, Mark Robertson; Anderson, Alexander A.R.	Moffitt Cancer Center	Robust Method for the Alignment of Serial Whole Slide Histology
B11	<u>Muniz, Ayse</u> ; Brooks, Michael; Neale, Dylan; Sze, Angela; Wicha, Max; Lahann, Joerg	University of Michigan	Engineered extracellular matrix polymer scaffolds for precisely defined cellular microenvironments
B12	<u>Neale, Dylan</u> ; Muniz, Ayse; Vargas, Diego; Wawryszyn, Mirella; Buschhaus, Johanna; Owen, Sarah; Solorio, Luis; Nagrath, Sunitha; Luker, Gary; Lahann, Joerg	University of Michigan	Engineered extracellular matrix scaffolds induce directionally persistent cell migration
B13	<u>Nathan S. Swami</u> , David F. Kashatus, Gustavo Rohde and Todd Bauer	University of Virginia	Stratifying mitochondrial heterogeneity of pancreatic tumors by single-cell impedance cytometry
B14	<u>Kenji Yokoi</u> , Arturas Ziemys, Lidong Qin, Milos Kojic, Megumi Kai, Yan Ting Liu and Mauro Ferrari	Houston Methodist Research Institute	Biophysical roles of platelets in the pre-metastatic niche on transport of circulating tumor cells
B15	<u>Moritz, Michelle</u> ; Wang, Feng; Brilot, Axel F., Agard, David A.	UCSF	Revealing mechanisms of cancer-related protein complexes through atomic-resolution cryo-electron microscopy
B16	<u>Kim, Jae Hun</u> ; Fredberg, Jeffrey	Harvard T.H. Chan School of Public Health	Unjamming and cell shape changes in breast cancer
<b>Computational Approaches to Cancer</b>			
B17	<u>Yufan Zhou</u> , Xiaolong Cheng, Sandun Jayarathna, Yini Yang, Tian Li, Diana L. Gerrard, Ryan Laseter, Seth E. Fretz, and Victor X. Jin	University of Texas Health Science Center at San Antonio	HiSIF, a computational model of Hi-C data, identifies cell-type-specific chromatin interactions
B18	<u>Yuri Pritykin</u> , Lauren Fairchild, Christina Leslie	Memorial Sloan Kettering Cancer Center	Integration of chromatin accessibility and gene expression data across multiple mouse models helps to characterize CD8 T cell dysfunction in cancer and chronic infection
B19	<u>Aparicio, Luis</u> ; Bordyuh, Mykola; Rabadan, Raul	Columbia University	Universality properties of Random Matrix Theory to study single cell multiomics
B20	<u>Harris, L. A.</u> , Frick, P. L., Paudel, B. B., Hayford, C. E., Tyson, D. R., and Quaranta, V.	Vanderbilt University	Non-genetic bet hedging as a survival strategy in cancer cell populations

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B21	<u>Junwen Wang</u> , Panwen Wang, Leif Bergsagel, Keith Stewart	Mayo Clinic Arizona	Integrative genomics approaches to study SETDB1 dysregulatory network in multiple myeloma
B22	<u>Malmi Kakkada, Abdul</u> ; Li, Xin; Samanta, Himadri S.; Sinha, Sumit; Thirumalai, Dave	University of Texas at Austin	CELL GROWTH RATE DICTATES THE ONSET OF GLASS TO FLUID-LIKE TRANSITION AND LONG TIME SUPER-DIFFUSION IN AN EVOLVING CELL COLONY
B23	<u>Froehlich, Fabian</u> ; Kessler, Thomas; Weindl, Daniel; Shadrin, Alexey; Schmiester, Leonard; Hache, Hendrik; Muradyan, Artur; Schütte, Moritz; Lim, Ji-Hyun; Heinig, Matthias; Theis, Fabian; Lehrach, Hans; Wierling, Christoph; Lange, Bodo; Hasenauer, Jan	HMS CCSP	Scalable parameterization of large-scale mechanistic models enables drug response prediction
B24	<u>Michael Reich</u> , Thorin Tabor, Peter Carr, Edwin Juarez, David Eby, Ted Liefeld, Helga Thorvaldsdóttir, Barbara Hill, Pablo Tamayo, Jill P Mesirov	UCSD	GenePattern Notebook: an integrative analytical environment for cancer research
B25	<u>Massey, Susan Christine</u> ; Urcuyo, Javier; Hawkins-Daarud, Andrea ; Jackson, Pamela R.; Tuma, Ann C.; Marin, Bianca Maria; Gupta, Shiv; Burns, Terence; Giannini, Caterina; Tran, Nhan; Hu, Leland; Sarkaria, Jann; Swanson, Kristin R.	MIT	Glioblastoma invasiveness may predict response to therapies with high or low blood brain barrier penetrability
B26	<u>Charles Herring</u> , Amrita Banerjee, Eliot McKinley, Alan Simmons, Qi Liu, Robert Coffey, Ken Lau	Vanderbilt University	Cell Fate Relationships Mapped by p-Creode Trajectory Analysis of Single-cell Data
B27	<u>Robertson-Tessi, Mark</u> ; Gillies, Robert; Gatenby, Robert; Anderson, Alexander	Moffitt Cancer Center	Intermittent hypoxia and tumor-immune interactions: A multiscale approach to understanding spatiotemporal heterogeneity
B28	Bencomo, Tomas; <u>Hawkins-Daarud, Andrea</u> ; Singleton, Kyle; Swanson, Kristin R.	Moffitt Cancer Center	The Same But Different: Identifying Distinct Imaging Ecologies in Male and Female Glioblastomas
B29	<u>Jill Gallaher</u> , Pedro M. Enriquez-Navas, Kimberly A. Luddy, Robert A. Gatenby, and Alexander R. A. Anderson	Moffitt Cancer Center	Exploiting space and trade-offs in drug scheduling using adaptive therapy
B30	<u>Sarah Anderson</u> , Steven Tan, Alex Dunn, David Odde	University of Minnesota	Updated motor clutch model for cell traction recapitulates dynamics observed in single-molecule FRET-based force sensors
B31	<u>Jay C. Hou</u> , Liam Tyler, Brian T. Castle, Victor H. Barocas, Daniel F. Keefe, David J. Odde	University of Minnesota	Parameter analysis of the cell migration simulator 1.0 with an efficient computational method
B32	<u>Dwight Nissley</u> and Fred Streit	Frederick National Laboratory; Lawrence Livermore National Laboratory	Investigating Ras biology on lipid membranes: a DOE/NCI Collaboration
B33	Greenspan, Emily; Gryshuk, Amy; Lauzon, Carolyn; <u>Stahlberg, Eric</u>	FNLCR	NCI - Department of Energy Collaborations : Extending Frontiers of Predictive Oncology and Computing
<b>Molecular Networks Driving Tumor Phenotype</b>			
B34	<u>Ozgun Babur</u> , Augustin Luna, Anil Korkut, Funda Durupinar, Metin Can Siper, Ugur Dogrusoz, Joseph E. Aslan, Chris Sander, Emek Demir	Oregon Health & Science University	Causal interactions from proteomic profiles: molecular data meets pathway knowledge
B35	<u>Danielle Swaney</u> , Margaret Soucheray, Jisoo Park, Neil Bholra, Toni Brand, Kuymn Kim, Fan Zheng, Minkyu Kim, Silvio Gutkind, Jennifer Grandis, Trey Ideker, Nevan Krogan	UCSF	Quantitative multidimensional characterization of protein-protein interactions in head and neck cancer
B36	<u>de Lazaro, Irene</u> ; Kroll, Katharina; Reynolds, Daniel; Zhang, David; Adu-Berchie, Kwasi; Lewis, Jennifer & Mooney, David	Harvard University	Molecular analysis towards the optimization of in vitro cancer models
B37	<u>Zheng, Fan</u> ; Yu, Michael; Ono, Keiichiro; Flagg, Mitchell; Kim, Minkyu; Swaney, Danielle; Demchak, Barry; Kreisberg, Jason; Krogan, Nevan; Ideker, Trey	University of California, San Diego	Multiscale mapping of the functional architecture of cancer systems
B38	<u>Maddox, Sarah</u> ; Wooten, David; Wandishin, Clayton; Kochen, Michael; Pino, James; Tyson, Darren; Lopez, Carlos F.; Quaranta, Vito	Vanderbilt University	Regulation of a Chemoresistant Small Cell Lung Cancer Phenotype with Immunosuppressive Properties
B39	Sheng Wang; <u>Jianzhu Ma</u> ; Wei Zhang; John Paul Shen; Justin Huang; Jian Peng; Trey Ideker	University of California, San Diego	Typing tumors using pathways selected by somatic evolution
B40	<u>McQuerry, Jasmine A</u> ; Jenkins, David F; Johnson, W. Evan; Yost, Susan; Yuan, Yuan; Bild, Andrea H	Beckman Research Institute - City of Hope	Pathway activity profiling differentiates metaplastic breast cancer histological subtypes
B41	Clarence K Mah, Miriam Adam, Pamela Milani, Brook T Wassie, Tobias Ehrenberger, Tenley C. Archer, Scott L. Pomeroy, Ernest Fraenkel, Jill P. Mesirov, <u>Lukas Chavez</u>	UC San Diego	Associating post-translational modifications with chromatin accessibility in medulloblastoma

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B42	<u>Apostolidi, Maria</u> ; Vanaja, Kiran; Park, JinSeok; Wyler, Amy; Boggon, Titus; Levchenko, Andre; Rinehart, Jesse	Yale University	Regulation of cancer cell metabolism: Focusing on pyruvate kinase type M2 site-specific phosphorylation and its pivotal role in malignant transformation
B43	<u>Ruiz, Rolando</u> ; Chen, Chi-Fen; Krasieva, Tatiana; Ganesan, Anand; Lander, Arthur	University of California Irvine	Can 'Oncogene Induced Senescence' explain nevus growth?
B44	<u>Juan Fuxman Bass</u> , Martha L Bulyk, and Marc Vidal	DFCI	Rewiring of regulatory networks in breast cancer by transcription factor isoforms
B45	<u>Melaine Sebastian</u>	Vanderbilt University	Rule-based Modeling of the Notch Signaling Pathway in Small Cell Lung Cancer
<b>Patient advocacy</b>			
B46	<u>Samson, Susan</u> ; Zahir, Nastaran; Judge, Sheila M.; Cornew, Stuart; Riter, Bob; Francoeur, Jeri; Meyn, Anne; Cynkin, Laurie; Northey, Jason J.; Weaver, Valerie M.; Baas, Carole	NIH	Regional strategies for expanding the evolving continuum of Physical Sciences - Oncology Network (PS-ON) research advocacy experiences
B47	<u>Dedmon, Ashley</u>	CITO-Houston Methodist Research Institute	The Power of Patient Advocacy in Effective Cancer Prevention and Treatment
B48	<u>Jeri Francoeur</u> , Robert Gateby, Heiko Enderling, Alexander Anderson	Moffitt Cancer Center	Moffitt-PSOC Training Program and Scientific Community Outreach
<b>Resources</b>			
B49	<u>Ghosh, Sudakshina</u>	PBCF	PBCF - The Trusted Bioresource Core for the PS-ON and CSBC Investigators
B50	<u>Mykola Bordyuh</u> ; Luis Aparicio; Raul Rabadan	The Columbia University Center for Topology of Cancer Evolution and Heterogeneity	Finding tumor subpopulations in heterogeneous single cell data using machine learning algorithms and random matrix theory
<b>Translational Applications of Physical Oncology and Systems Biology</b>			
B51	Eunjung Kim, Inna Smalley, Zeynep Eroglu, Vernon Sondak, Robert Gatenby, Keiran Smalley, <u>Alexander Anderson</u>	Moffitt Cancer Center	Personalized adaptive therapies for metastatic melanoma: A Phase I approach
B52	<u>Enriquez-Navas, Pedro M</u> ; Abrahams, Dominique; Gillies, Robert J; Gatenby, Robert A.	Moffitt Cancer Center	Improving treatment of colorectal cancer by using tumor evolutionary dynamics.
B53	<u>Jackson, Pamela R.</u> ; Ranjbar, Sara; Randall, Elizabeth; Regan, Michael; Abdelmoula, Walid M.; Lopez, Begona G.C.; Massey, Susan C.; He, Lihong; Macura, Slobodan; Hu, Leland; Agar, Jeffrey N.; Sarkaria, Jann; Agar, Nathalie; Swanson, Kristin R.	Massachusetts Institute of Technology	Localization of erlotinib relative to MRI-based tumor extent in PDX glioblastoma model: Towards a mathematical model for the interface between MRI and drug distribution
B54	<u>Fast, Alexander</u> ; Osseiran, Sam; Evans, Conor	MGH	Towards clinical multimodal NLO imaging system for dermatology
B55	<u>De Leon, Gustavo</u> ; Johnston, Sandra K; Singleton, Kyle W; Rickertsen, Cassandra R; Bayless, Spencer; Yee, Sara; Khalifa, Ali S; Clark-Swanson, Kamala R; Porter, Alyx; Bendok, Bernard; Rodriguez, Analiz; Badie, Behnam; Sahoo, Prativa; Mrugala, Maciej M; Rockne, Russell C; Brown, Christine; Swanson, Kristin R	Moffitt Cancer Center	Discrimination of Response to CAR T-Cell Therapy Using a Novel Response Metric Incorporating Tumor Growth Kinetics in Recurrent GBM Patients
B56	Natarajan, A., Chenghao, G., Zhou, Y., Nadarajah, V., Felsovalyi, K., Wang, W., Cardozo, T., Bracken, C., Zhu, C., <u>Krogsgaard, M.</u>	Georgia Institute of Technology	Molecular determinants involved in TCR proximal signaling
B57	<u>Pierre Wallet</u> , Lance Pflieger, Neena Leggett, Andrea Bild, and Jeffrey Chang	City of Hope	Evolution of immune cell subtypes and phenotypes during MK-3475 (aPD1) treatment in patients with advanced gastrointestinal cancers
B58	Ying I. Wang, Danielle LaValley, Paula Miller, <u>Michael L. Shuler</u>	Cornell University	UniChip enables long-term recirculating unidirectional perfusion with gravity-driven flow for Body-on-a-Chip systems