

## **2015 Abstracts**

Hyeun Joong Yoon, Apoorv Shanker, Yang Wang, Molly Kozminsky, Shamileh Fouladdel, Monika L. Burness, Ebrahim Azizi, Max S. Wicha, Jinsang Kim, Sunitha Negrath. **Capture and release of circulating tumor cells by temperature-sensitive graphene oxide-polymer composite.** 2015 AACR, Philadelphia, PA.

Maria Ouzounova, EunMi Lee, Ena Novakovic, Satish Kumar Noonepalle, Raziye Piranlioglu, Huidong Shi, Max Wicha, Hasan Korkaya. **SOCS3 regulates IDO proteasomal degradation and inflammatory signaling in triple negative breast cancer.** 2015 AACR, Philadelphia, PA.

Mina Zeinali, Vasudha Murlidhar, Shamileh Fouladdel, Mathius Hafner, Shimeng Shao, Ebrahim Azizi, Max S. Wicha, Kyle Cuneo, Diane M. Simeone, Sunitha Negrath. **Analysis of circulating epithelial and EMT-like CTCs in pancreatic cancer using a sensitive microfluidic CTC capture device.** 2015 AACR, Philadelphia, PA.

Lianette Rivera-Baez, Eric Lin, Hyeun Joong Yoon, Meghna Waghray, Shamileh Fouladdel, Ebrahim Azizi, Max Wicha, Diane Simeone, Sunitha Negrath. **Application of label-free microfluidic technologies for the enrichment, expansion and characterization of circulating tumor cells in pancreatic cancer.** 2015 AACR, Philadelphia, PA.

Eric Lin, Lianette Rivera, Hyeun Joong Yoon, Shamileh Fouladdel, Jacob Wieger, Stephanie Guthrie, Yadwinder S. Deol, Shawn G. Clouthier, Tahra K. Luther, Diane M. Simeone, Monika L. Burness, Ebrahim Azizi, Max S. Wicha, Sunitha Negrath. **Label-free high throughput microfluidic device for the isolation of circulating tumor cells from breast cancer patients.** 2015 AACR, Philadelphia, PA.

Vasudha Murlidhar, Rishindra M. Reddy, Ebrahim Azizi, Lili Zhao, Svetlana Grabauskiene, Zhuo Zhang, Nithya Ramnath, Jules Lin, Andrew C. Chang, Philip W. Carrott, William R. Lynch, Mark B. Orringer, Max S. Wicha, Nallasivam Palanisamy, David G. Beer, Sunitha Negrath. **A study of pulmonary and peripheral vein blood as sources of circulating tumor cells in early lung cancer.** 2015 AACR, Philadelphia, PA.

Ray Esper, Michael Dame, Shannon McClintock, Becky Simon, Max Wicha, Dean Brenner. **Leptin drives mammary stem cell self-renewal via the mTOR pathway.** 2015 AACR, Philadelphia, PA.

Hyeun Joong Yoon, Apoorv Shanker, Yang Wang, Molly Kozminsky, Shamileh Fouladdel, Monika L. Burness, Ebrahim Azizi, Max S. Wicha, Jinsang Kim, Sunitha Negrath. **Capture and release of circulating tumor cells by temperature-sensitive graphene oxide-polymer composite.** 2015 AACR, Philadelphia, PA.

Zhuo Zhang, Hiroe Shiratsuchi, Jules Lin, Guoan Chen, Rishindra M. Reddy, Ebrahim Azizi, Shamileh Fouladdel, Andrew C. Chang, Lin Lin, Hui Jiang, Meghna Waghray, Diane M. Simeone, Max S. Wicha, David G. Beer, Gary Luker, Nithya Ramnath, Sunitha Negrath.

**Expansion of CTCs from early stage lung cancer patients using a microfluidic co-culture model.** 2015 AACR, Philadelphia, PA.

Yadwinder S. Deol, Sean McDermott, David Lubman, Jenny Chang, Song Nie, Tahra Luther, Yang Cong, Ebrahim Azizi, Justin Colacino, Shawn Clouthier, Max S. Wicha. **Annexin A3 regulates MET-like aldehyde dehydrogenase positive breast cancer stem cells.** 2015 AACR, Philadelphia, PA.

Luo Wang, Hasan Korkaya, April Davis, Sarah Dubaisi, Gregory Kalemkerian, Max Wicha, Khaled Hassan. **Tumor plasticity, transitioning into a mesenchymal phenotype, is a mechanism of chemoresistance that is reversed by Notch pathway inhibition in lung adenocarcinoma.** 2015 AACR, Philadelphia, PA.

Shamileh Fouladdel, Hyeun Joong Yoon, Eric Lin, Tae Hyun Kim, Yadwinder S. Deol, Tahra K. Luther, Shawn G. Clouthier, Hui Jiang, Monika L. Burness, Sunitha Nagraath, Ebrahim Azizi, Max S. Wicha. **Gene expression signatures of isolated circulating tumor cells from metastatic breast cancer patients reveal presence of breast cancer stem cells with EMT or MET phenotypes.** 2015 AACR, Philadelphia, PA.

Ming Luo, April Davis, Sean McDermott, Evelyn Jiagge, Michael Brooks, Elizabeth Gheordunescu, Tahra Luther, Shawn G. Clouthier, Sarah Conley, Douglas R. Spitz and Max S. Wicha. **Targeting EMT and MET breast cancer stem cell states through simultaneous inhibition of glycolytic and antioxidant pathways.** 2015 AACR, Philadelphia, PA.

Maria Ouzounova, Eunmi Lee, Abdeljabar Al-Enduloussi, Ena Novakovic, Raziye Piranlioglu, M. Fatih Demirci, Shawn G. Clouthier, Max S. Wicha and Hasan Korkaya. **Systemic immune priming via tumor-secreted cytokines facilitates breast cancer metastasis in syngeneic mouse model.** 2015 AACR, Philadelphia, PA.

Joseph P. Burnett, Ronack B. Shah, Hayley J. Paholak, Sean P. McDermott, Yasuhiro Tsume, Max S. Wicha, and Duxin Sun. **Combination of Docetaxel with Sulforaphane Synergistically Inhibits Triple Negative Breast Cancer and Cancer Stem Cells.** 2015 AACR, Philadelphia, PA.

Michael D. Brooks & Max S. Wicha. **Quantification of dedifferentiation rates in breast cancer using fluorescent reporter constructs and lineage tracing.** 2015 AACR, Philadelphia, PA.

Ebrahim Azizi, Evelyn M. Jiagge, Shamileh Fouladdel, Shukmei Wong, Michele L. Dziubinski, Mary Sehl, Anahita Kyani, Jun Li, Hui Jiang, Tahra K. Luther, Shawn G. Clouthier, Sean P. McDermott, John Carpten, Lisa A. Newman, Sofia D. Merajver, Max S. Wicha. **Single cell multiplex gene expression analysis to unravel heterogeneity of PDX samples established from tumors of breast cancer patients with different ethnicity.** 2015 AACR, Philadelphia, PA.

Leonel Hernandez-Aya, Yajing Liu, Kelsey Kerr, Nouri Neamati, Shuzo Tamura, Max S. Wicha, Monika L. Burness. **Targeting the gp130 receptor in preclinical models of triple-negative breast cancer.** 2015 AACR, Philadelphia, PA.

Yajing Liu; Rachel Martin-Trevino, Li Shang, April Davis, Max S. Wicha, Suling Liu, Monika Burness. **Histone Deacetylase Inhibitors Sensitize Cancer Stem Cells to PARP Inhibitors in Triple-Negative Breast Cancer.** 2015 AACR, Philadelphia, PA.

Hayley J. Paholak, Nicholas O. Stevers, Joseph P. Burnett, Hongwei Chen, Sean P. McDermott, Miao He1, Tahra Luther, Shawn G. Clouthier, Max S. Wicha, and Duxin Sun. **Epithelial-like Breast Cancer Stem Cells are Preferentially Sensitive to Nanoparticle-Mediated Hyperthermia.** 2015 AACR, Philadelphia, PA.

Mark E.P. Prince, Li Zhou, Yang Xia, Huimin Tao, Jeffrey S. Moyer, Lin Lu, John Owen, Alfred E Chang, Jianchuan Xia, Gregory Wolf, Max S Wicha, Xiubao Ren, Yangyi Bao, Shiang Huang, Qiao Li. **Evaluation of the immunogenicity of ALDHhigh human head and neck squamous cell carcinoma cancer stem cells in vitro.** 2015 AACR, Philadelphia, PA.

Yangyang Hu, Lin Lu, Alfred E. Chang, Martin Egenti, John Owen, Jeffrey S. Moyer, Mark E.P. Prince, Jian-chuan Xia, Shiang Huang, Max S. Wicha, Qiao Li. **Therapeutic efficacy of cancer stem cell vaccines in an adjuvant setting.** 2015 AACR, Philadelphia, PA.

Sarah J. Conley, Trenton L. Baker, Joseph P. Burnet, Rebecca L. Thiesen, Douglas Lazarus, Christian G. Peters, Shawn G. Clouthier, Scott Eliasof, Max S. Wicha. **CRLX101, an investigational camptothecin-containing nanoparticle-drug conjugate, reverses the HIF-1 $\alpha$  mediated increase in cancer stem cells caused by bevacizumab in a preclinical model of triple-negative breast cancer.** 2015 AACR, Philadelphia, PA.

Evelyn M. Jiagge, Qingxuan Song, Shukmei Wong, Tahra Luther, Michele Dziubinski, Shawn Clouthier, Sean McDermott, Lisa Newman, John Carpten, Jun Li, Sofia Merajver Max Wicha. **Multiethnic triple negative breast cancer comparisons of gene expression shows enrichment of distinct pathways in ALDH1+ subpopulations compared to CD44+/CD24-/EpCAM+.** 2015 AACR, Philadelphia, PA.

Evelyn M. Jiagge, Shukmei Wong, Gabriel Lupu, Mu Qiao, Michele Dziubinski, Lisa A. Newman, John Carpten, Max Wicha, Sofia D. Merajver. **Prevalent loss of BRCA1 and BRCA2 expression in African TNBC suggests their prominent role in sporadic carcinogenesis.** 2015 AACR, Philadelphia, PA.

### **2014 Abstracts**

Tahra Luther, Evelyn Jiagge, Michael T. Lewis, David Monsma, Craig Webb, Suling Liu, Hasan Korkaya, Sean McDermott, Shawn Clouthier, Lisa Newman, Max Wicha. **Creating a Comprehensive Patient Derived Xenograft (PDX) Bank to Represent Racial Disparities in Triple Negative Breast Cancer (TNBC).** 2014 AACR, San Antonio, TX.

Khaled Hassan, Luo Wang, Paige O'Dowd, Sarah Dubaisi, Rayyan Kadi, Rawad Nasr, Binghui Zhang, Gwangil Kim, Hasan Korkaya, April Davis, Gregory Kalemkerian, Max Wicha.

**Altering chemoresistance in lung adenocarcinoma by blocking the Notch pathway and inducing mesenchymal to epithelial transition.** 2014 AACR, San Diego, CA

Lichao Sun, Joseph Burnett, Mari Gasparyan, Hasan Korkaya, Hui Jiang, Yajing Liu, Jamie Connarn, Max S. Wicha, Duxin Sun. **MEOX-1 as a Novel Cancer Stem Cell Target for Treatment of Trastuzumab-Resistant Her2+ Breast Cancers.** 2014 AACR, San Diego, CA.

Yadwinder S Deol, Sean McDermott, David Lubman, Jenny Chang, Song Nie, Yang Cong, Alice Turdo, Ebrahim Azizi, Tahra Luther, Shawn Clouthier, Max Wicha. **Annexin A3 is selectively expressed in MET as compared to EMT-like breast cancer stem cells.** 2014 AACR, San Diego, CA.

Ebrahim Azizi, Shamileh Fouladdel, Yadwinder Deol, Jonathan Bender, Sean McDermott, Hui Jiang, Mary Sehl, Shawn G. Clouthier, Sunitha Nagrath, and Max S. Wicha. **Exploring cancer stem cells heterogeneity via single cell multiplex gene expression analysis.** 2014 AACR, San Diego, CA.

Evelyn Jiagge, Shukmei Wong, Tahra Luthur, Sean McDermott, Shawn Clouthier, Sofia Merajver, Jessica Aldrich, Ahmet Kurdoglu, David Craig, Jeffrey Trent, Lisa Newman, Patricia LoRusso, Max Wicha, John Carpten. **Distinct pathways differentiate the CD44+ mesenchymal-like from the ALDH+ epithelial-like phenotype of triple negative breast cancer stem cells.** 2014 AACR, San Diego, CA.

Kevin Zhang, Sean P. McDermott, Max S. Wicha. **Targeting stem cells in triple negative breast cancer through combined MEK and AKT inhibition.** 2014 AACR, San Diego, CA.

Sean P. McDermott, Fatou Ndaw, Alexandra Fox, Steve R. Vander Roest, Martha J. Larsen, Max S. Wicha. **High-throughput drug discovery against breast cancer stem cells.** 2014 AACR, San Diego, CA.

Maria Ouzounova, Gwangil Kim, Ali Quraishi, April Davis, Nader Tawakkol, Max Wicha and Hasan Korkaya. **SOCS3-mediated regulation of inflammatory cytokines in triple negative breast cancer.** 2014 AACR, San Diego, CA.

Shamileh Fouladdel, Hyeun Joong Yoon, Tae Hyun Kim, An Shi, Tahra Luther, Jill Hayden, Shawn Clouthier, Yadwinder Deol, Monika Burness, Dan Hayes, Sunitha Nagrath, Ebrahim Azizi, and Max Wicha. **Circulating tumor cells (CTCs) isolated from patients with metastatic breast cancer utilizing a sensitive microfluidic graphene oxide (GO) nanosheet device express markers of cancer stem cells.** 2014 AACR, San Diego, CA.

Lin Lu, Huimin Tao, Yang, Xia, John Owen, Jeffrey S. Moyer, Mark E.P. Prince, Alfred E. Chang, Max S. Wicha, Qiao Li. **Cancer stem cell vaccine inhibits metastases of primary**

**tumors and induces humoral immune responses against cancer stem cells.** 2014 AACR, San Diego, CA.

Yajing Liu, Leo Hernandez, April Davis, Max Wicha, Monika Burness. **Interleukin 6 and interleukin 8 inhibitors when used with combination with cheom-compounds, inhibits tumor progression in mouse model of triple-negative breast cancer.** 2014 AACR, San Diego, CA.

Sarah Conley, Trenton Baker, Rebecca Thiesen, Elizabeth Gheordunescu, Yueming Zhu, Nukhet Aykin-Burns, Melissa Fath and Douglas R. Spitz, Max Wicha. **Targeting Breast Cancer Stem Cells Via Oxidative Stress by Combining Inhibitors of Hydroperoxide Metabolism and Decyl-Triphenylphosphonium.** 2014 AACR, San Diego, CA.

Lin Lu, Huimin Tao, Martin Egenti, Max S. Wicha, Alfred E. Chang, Qiao Li. **Therapeutic efficacy of cancer stem cell-based vaccine in an adjuvant setting.** 2014 AACR, San Diego, CA.

Michael J. Campbell, Rita Mukhtar, Ekene Obi-Okoye, Booyeon Han, Vick Tandon, Sarah Zheng, Zelos Zhu, Max Endicott, Max Wicha, Linda Lindstrom, Alfred Au, Frederick Baehner1, Joe Gray, Laura Esserman. **Suppressed immunity and macrophages characterize high risk high grade DCIS.** 2014 AACR, San Diego, CA.

Vasudha Murlidhar, Rishindra M. Reddy, Mina Zeinali, Svetlana Grabauskiene, Mostafa Ghannad-Rezaie, Max S. Wicha, Diane M. Simeone, Nithya Ramnath, Sunitha Nagrath. **Radial flow microfluidic device for high-throughput affinity-based isolation of circulating tumor cells.** 2014 AACR, San Diego, CA.

Ray Esper, Dame Michael, Zora Djuric, William Smith, Max Wicha, Dean Brenner. **Adipokines modulate human mammary stem cell self-renewal through mTOR.** 2014 AACR, San Diego, CA.

Maria Ouzounova, Gwangil Kim, April Davis, Ahmed A. Quraishi, Nader Tawakkol, Shalini Kota, Max S. Wicha, Hasan Korkaya. **Inactivation of p53/PTEN confers a specific epigenetic profile regulated by IL6-SOCS3 signaling.** 2014 AACR, San Diego, CA.

Anupama Pal, Ming Luo, Max Wicha, Moshe Talpaz, Nicholas Donato. **Deubiquitinase USP9X inhibition induces apoptosis in metastatic breast cancer cells.** 2014 AACR, San Diego, CA.

Evelyn Mawunyo Jiagge, Joseph k Oppong, Baffour Awuah, Lisa A. Newman, Max Wicha, Sofia Merajver. **Characteristics of breast cancer in Ghana suggest high prevalence of aggressive disease and high mortality.** 2014 ASCO, Chicago, IL.

Schott A.F., Wicha M.S., Perez R., Kato G., Avery T., Cristofanilli M., Reuben J.M., Alpaugh R.K., McCanna S. , Ruffini P.A. , Goldstein L.J. **A phase Ib study of the CXCR1/2 inhibitor**

**Reparixin in combination with weekly paclitaxel in metastatic HER2 negative breast cancer – preliminary results.** 2014 SABCS, San Antonio, Texas.

### **2013 Abstracts**

Joseph Burnett, Hasan Korkaya, Bryan Newman, Sarah Conley, Jamie Connarn, Lichao Sun, Hsiu-Fang Lee, Maria Ouzounova, Max Wicha, Duxin Sun. **Natural product sulforaphane selectively inhibits breast cancer stem cells in basal and trastuzumab resistant Her2+ breast cancer.** 2013 AACR, Washington, DC.

Max S. Wicha. **Clinical implications of stem cell in breast cancer.** 2013 AACR, Washington DC.

Lin Lu, Huimin Tao, Martin Egenti, Max S. Wicha, Alfred E. Chang, Qiao Li. **Therapeutic efficacy of cancer stem cell-based vaccine in an adjuvant setting.** 2013 AACR, Washington, DC.

Khaled Hassan, Luo Wang, Hasan Korkaya, Paige O'Dowd, Sarah Dubaisi, Rayyan Kadi, Rawad Nasr, Binghui Zhang, April Davis, Gregory Kalemkerian, Max Wicha. **Blocking the Notch pathway induced mesenchymal-to-epithelial transition in lung adenocarcinoma: A novel approach to overcoming chemoresistance.** 2013 AACR, Washington, DC.

Sarah J. Conley, Trenton Baker, Rebecca Theisen, Elizabeth Gheordunescu, Yueming Zhu, Nukhet Aykin-Burns, Melissa Fath, Douglas Spitz, Max Wicha. **Targeting Breast cancer stem cells via oxidative stress with inhibitors of hydroperoxide metabolism and decyl-triphenylphosphonium.** 2013 AACR, Washington, DC.

Hasan Korkaya, Fayaz Malik, Kathleen C. Day, Suthinee Ithimakin, April Davis, Ahmed A. Quraishi, Nader Tawakkol, Kathleen Woods Ignatoski, Dafydd Thomas, Shawn G. Clouthier, Max S. Wicha. **Regulation of luminal breast cancer stem cells by HER2 does not require gene amplification providing a potential molecular explanation for the efficacy of adjuvant trastuzumab in patients with “clinically HER2-negative” breast cancer.** 2013 AACR, Washington, DC.

Hyeun Joong Yoon, Tae Hyun Kim, Zhuo Zhang, Nithya Ramnath, Max S. Wicha, Daniel F. Hayes, Diane M. Simeone, Sunitha Nagrath. **Integrated micro nanotechnology for the sensitive isolation of circulating tumor cells.** 2013 AACR, Washington, DC.

Mary E. Sehl, Miki Shimada, Kenneth Lange, Max S. Wicha. **Modeling of EMT/MET transitions in breast cancer stem cells.** 2013 AACR, Washington, DC.

S. Eliasof, S. Conley, S. Keefe, R. Kerbel, C. Krasner, D. Lazarus, C. Peters, E. Pharm, M. Wicha, E. Garmey. **Synergistic activity of CRLX101, a nanop pharmaceutical in phase 2 clinical trials, with antiangiogenic therapies mediated through HIF-1alpha inhibition: a translational research program.** 2013 AACR, Washington, DC.

Hasan Korkaya, April Davis, Maria Ouzounova, Fayaz Malik, Gwangil Kim, Ahmed A. Quraishi, Shawn G. Clouthier, Max S. Wicha. **IL6 feedback loop regulates breast cancer stem cells which mediate trastuzumab resistance.** 2013 AACR, Washington, DC.

Marie Ouzounova, Gwangil Kim, Fayaz Malik, April Davis, Ahmed A. Quraishi, Shawn G. Clouthier, Max S. Wicha, Hasan Korkaya. **Epigenetic regulation of cancer stem cell states in a p53/PTEN inactivated mammary epithelial cells.** 2013 AACR, Washington, DC.

Yajing Liu, Rachel Martin, Shoumin Bai, Max S. Wicha, Suling Liu. **Rad51 is involved in PARP inhibitor resistance in triple-negative breast cancer stem cells (TNBCSCs).** 2013 AACR, Washington, DC.

Hyeun Joong Yoon, Tae Hyun Kim, Zhuo Zhang, Nithya Ramnath, Max S. Wicha, Daniel F. Hayes, Diane M. Simeone, Sunitha Nagrath. **Integrated micro nanotechnology for the sensitive isolation of circulating tumor cells.** 2013 AACR, Washington, DC.

Kelly Bailey, Sean McDermott, Shawn Clouthier, Max Wicha. **The effect of the thioridazine analog BG-7862 on cancer stem cell populations.** 2013 U of M Pediatrics Research Conference, Ann Arbor, MI.

### **2012 Abstracts**

Korkaya Hasan, Gwangil Kim, Fayaz Malik, April Davis, Amanda K. Paulson, Ahmet A. Quraishi, Rosemarie C. D'Angelo, Nader Tawakkol, Suling Liu, Khaled Hassan, Shawn G. Clouthier, Max S. Wicha. **Transformation of mammary epithelial cells by inactivation of p53 and PTEN generates cancer stem cells driven by an IL-6/TGF-beta inflammatory loop.** 2012 AACR, Chicago, IL.

Li Shang, Shoumin Bai, Rachel Martin-Trevino, Sean McDermott, Christophe Ginestier, Ingrid Ibarra, Trenton Baker, Fayaz Malik, Jia Ke, Shivani H. Patel, Tahra Luther, Hasan Korkaya, Kevin J Zhang, Shawn G. Clouthier, Gregory J. Hannon, Max S. Wicha, Suling Liu. **microRNAs regulate the transition between EMT and MET breast cancer stem cell states.** 2012 AACR, Chicago, IL.

Fayaz Malik, Suthinee Ithimakin, Kathleen Day, Qin Zen, Kathy Ignatoski, Dafydd Thomas, Tom Bersano, Scott Dawsey, Christopher Hall, April Davis, Nader Tavakkol, Shawn G. Clouthier, Mark Day, Daniel F. Hayes, Hasan Korkaya and Max S. Wicha. **HER2 Expression Drives Luminal Breast Cancer Stem Cells in the Absence of HER2 Amplification.** 2012 AACR, Chicago, IL.

Jia Ke, Fayaz Malik, Sean McDermott, Rachel Martin, Christopher Ginestier, Ingrid Ibarra, Li Shang, Hasan Korkaya, Shawn Clouthier, Greg Hannon, Max S Wicha, Suling Liu. **Role of microRNA221 in breast cancer stem cell expansion and induction of EMT.** 2012 AACR, Chicago, IL.

Conley SJ, Gheordunescu E, Theisen R, Wicha MS. **Targeting Notch signaling to abrogate the increase in breast cancer stem cells induced by hypoxia.** 2012 AACR, Chicago, IL.

Khaled Hassan, Luo Wang, Paige O'Dowd, Gwangil Kim, Hasan Korkaya, April Davis, Suling Liu, Gregory Kalemkerian, Max Wicha. **Blocking the Notch pathway inhibits the epithelial-mesenchymal transition (EMT) status in lung cancer and alters chemoresistance.** 2012 AACR, Chicago, IL.

Dang Vu-Phan, Jingcheng Yu, Ronald J. Koenig, Max Wicha. **Pax8-PPAR $\gamma$  Fusion Protein Activates  $\beta$ -catenin/TCF pathways.** 2012 AACR, Chicago, IL.

Fayaz Malik, Suthinee Ithimakin, Kathleen Day, Kathy Ignatoski, Qin Zen, Dafydd Thomas, Tom Bersano, Scott Dawsey, Christopher Hall, April Davis, Ahmed A. Quraishi, Nader Tawakkol, Shawn G. Clouthier, Mark Day, Daniel F. Hayes, Hasan Korkaya, Max S. Wicha. **HER2 drives luminal breast cancer stem cells in the absence of HER2 amplification: Implications for efficacy of adjuvant trastuzumab.** 2012 AACR, Chicago, IL.

Sara Lombardi, Christophe Ginestier, Gabriella Honeth, Ireneusz Shinomiya, Rebecca Marlow, Bharath Buchupalli, Patrycja Gazinska, John Brown, Arnie Purushotham, Max Wicha, Sarah Pinder, Gabriela Dontu. **Growth Hormone signaling in mammary stem and progenitor cells.** Jian Zhu, Hsiu-Fang Lee, Hasan Korkaya, Suling Liu, Sean McDermott, Max S. Wicha, Duxin Sun. **Computational assessment of oncogenic pathways modulated by vorinostat in breast cancer stem cells.** 2012 AACR, Chicago, IL.

### 2011 Abstracts

Suling Liu, Shoumin Bai, Jia Ke, Rachel Martin-Trvino, Shivani H. Patel, Sean McDermott, Tahra Luther, Amber Heath, Ingrid Ibarra, Hasan Korkaya, Shawn G. Clouthier, Gregory J. Hannon, Max S. Wicha. **MicroRNA100 regulates breast cancer stem cells.** 2011 AACR, Orlando, FL.

Hasan Korkaya, April Davis, Gwangil Kim, Ahmet A. Quraishi, Rosemarie D'Angelo, Amanda K. Paulson, Suling Liu, Tahra Luther, Shawn Clouthier and Max Wicha. **IL-6 and IL-8 stimulation of breast cancer stem cells contributes to trastuzumab resistance following PTEN deletion.** 2011 AACR, Orlando, FL.

Santos SJ, Karkala P, Heath AN, Clouthier SG, Wicha MS. **Anti-angiogenic agents increase breast cancer stem cells via generation of tumor hypoxia.** 2011 AACR, Orlando, FL.

Rosemarie Chirco D'Angelo, PhD, Hasan Korkaya, PhD, Gwangil Kim, MD, April Davis, Daejin Choi, Tahra Luther, Ahmed A. Quraishi, Shawn G. Clouthier and Max Wicha, MD. **Therapeutic Targeting of the Notch Pathway in Breast Cancer Stem Cells.** 2011 AACR, Orlando, FL.

Hsiu-Fang Lee, Bryan Newman, Suling Liu, Hasan Korkaya, Shawn G. Clouthier, Sean P McDermott, Max S. Wicha, and Duxin Sun. **HDAC inhibitor SAHA suppressed breast cancer stem cells in vitro and in vivo.** 2011 AACR, Orlando, FL.

### 2010 Abstracts

Korkaya Hasan, Amanda K. Paulson, Qin Zen, Hayley J. Smithkort, Ahmet A. Quraishi, Shivani Patel, Suling Liu, Amber Heath, Shawn G. Clouthier, Max S. Wicha. University of Michigan, Ann Arbor, MI. **Breast cancer stem cells play a role in trastuzumab resistance in mouse xenograph models.** 2010 AACR, Washington, DC.

Suling Liu, Christophe Ginestier, Ingrid Ibarra, Shivani H. Patel, Amber Heath, Sing J. Ou, Raj Jagirdar, Shawn G. Clouthier, Hasan Korkaya, Emmanuelle Charafe-Jauffret, Daniel Birnbaum, Gregory J. Hannon, Max S. Wicha. **Regulation of breast cancer stem cells by miR-93.** 2010 AACR, Washington, DC.

Yanyan Li, Tao Zhang, Hasan Korkaya, Suling Liu, Hsiu-Fang Lee, Bryan Newman, Yanke Yu, Shawn Clouthier, Steven Schwartz, Max Wicha, Duxin Sun. the Ohio State University, Columbus, OH; University of Michigan, Ann Arbor, MI. **Sulforaphane, a Dietary Component of Broccoli/Broccoli Sprouts, Inhibits Breast Cancer Stem Cells.** 2010 AACR, Washington, DC.

### **2009 Abstracts**

Zhengang Peng, Jennifer Chao, Christopher Penton, Sonya Yamashita, Suling Liu, Michael Chan, Victor Jin, Tim Huang, Max Wicha, and Huey-Jen Lin. **ALDH-positive population of basal subtype breast cancer cell lines harbors stem/progenitor properties with aberrant methylation at ADAM19 promoter.** 2009 AACR, Denver, CO.

Suling Liu, Christophe Ginestier, Sing Ou, Shawn Clouthier, Florence Monville, Julie Dutcher, Hsan Korkaya, Wasim Nasir, Gabriela Dontu, and Max Wicha. **Cytokine networks mediate interaction of mesenchymal stem cells and breast cancer stem cells.** 2009 AACR, Denver, CO.

Korkaya Hasan, Amanda Paulson, and Max Wicha. **Targeting breast cancer stem cells through inhibition of PI3-K/Akt/B-catenin signaling.** 2009 AACR, Denver, CO.

Khaled Hassan, Guoan Chen, Gregory Kalemkerian, Max Wicha, and David Beer. **An embryonic stem cell-like gene expression signature identifies a poorly differentiated phenotype in lung adenocarcinoma.** 2009 AACR, Denver, CO.

### **2008 Abstracts**

Khaled Hassan, Gregory Kalemkerian, and Max Wicha. **Aldehyde dehydrogenase activity identifies lung cancer cell line population that is more sensitive to Notch inhibition.** 2008 AACR, San Diego, CA.

Christophe Ginestier, Emmanuelle Charafe-Jauffret, Suling Liu, Nathalie Cervera, Francois Bertucci, Daniel Birnbaum, Gabriela Dontu, and Max Wicha. **The IL8/CXCR1 axis regulates breast carcinoma stem cells.** 2008 AACR, San Diego, CA.

Hasan Korkaya, Amanda Paulson, Flora Iovino, and Max Wicha. **HER2 regulates the normal and malignant mammary stem/progenitor cell population that drives tumorigenesis and invasion.** 2008 AACR, San Diego, CA.

Gabriela Dontu, Christophe Ginestier, Emmanuelle Charafe-Jauffret, Florence Monville, Jocelyne Jacquemier, Daniel Birnbaum, and Max Wicha. **Estrogen receptor status of stem and progenitor cells defines a hierarchy of cellular differentiation in normal and malignant breast epithelium.** 2008 AACR, San Diego, CA.

Amanda Paulson, Korkaya Hasan, Shaomeng Wang, Suling Liu, and Max Wicha. **Downregulation of p53 enhances human mammary stem/progenitor cell populations generating hyperplasia and DCIS in NOD-SCID mice.** 2008 AACR, San Diego, CA.

Steven Zielske, Aaron Spalding, Gabriela Dontu, Max Wicha, and Theodore Lawrence. **The radiation sensitivity of breast cancer stem cells.** 2008 AACR, San Diego, CA.

Madhuri Kakarala, Dean Brenner, Max Wicha, and Gabriela Dontu. **Curcumin and piperine may prevent breast cancer by modulating stem cell fate.** 2008 AACR, San Diego, CA.

### **2007 Abstracts**

Hasan Korkaya, Flora Iovino, and Max Wicha. **PTEN and HER2 regulate self-renewal and invasion of human mammary stem cells.** 2007 AACR, Los Angeles, CA.

Matthew Clay, Mark Tabor, Carol Bradford, Thomas Carey, Gregory Wolf, Max Wicha, and Mark Prince. **Aldehyde dehydrogenase isolates cancer stem cells in head and neck squamous cell carcinoma.** 2007 AACR, Los Angeles, CA.

Emmanuelle Charafe-jauffret, Christophe Ginestier, Min Hee Hur, Florence Monville, Nathalie Cervera, Pascal Finetti, Julie Dutcher, Julien Wicinsky, Marthy Brown, Luc Xerri, Francois Bertucci, Daniel Birnbaum, Gabriela Dontu, and Max Wicha. **ALDEFLUOR-positive populations in breast cell lines: evidence for cancer stem cells properties and gene expression profile (GEP).** 2007 AACR, Los Angeles, CA.

Suling Liu, Christophe Ginestier, Gabriela Dontu, and Max Wicha. **BRCA1 regulates human mammary stem cell self-renewal and differentiation.** 2007 AACR, Los Angeles, CA.

Max Wicha, Christophe Ginestier, Suling Liu, Hasan Korkaya, and Gabriela Dontu. **Stem cells in breast carcinogenesis: Implications for prevention and therapy.** 2007 AACR, Los Angeles, CA.

### **2006 Abstracts**

Max S. Wicha, Christophe Ginestier, Suling Liu, Hasan Korkaya, and Gabriela Dontu. **Implications of the cancer stem cell hypothesis for the early detection and prevention of breast cancer.** 2006 AACR, Washington, DC.

Jeffrey B. Smerage, Gerald V. Doyle, G. Thomas Budd, Anne F. Schott, Douglas W. Blayney, Max S. Wicha, Madeline Repollet, Leon W M M Terstappen, and Daniel F. Hayes. **The detection of apoptosis and Bcl-2 expression in circulating tumor cells (CTCs) from women being treated for metastatic breast cancer.** 2006 AACR, Washington, DC.

Max S. Wicha. **Self-renewal pathways in normal and malignant human mammary stem cells.** 2006 AACR, Washington, DC.

Suling Liu, Gabriela Dontu, Shivani Patel, Julie Dutcher, Hayley Smithkort, and Max S. Wicha. **Bmi-1 regulates self-renewal of normal and malignant human mammary stem cells.** 2006 AACR, Washington, DC.