



Accolades and Newsworthy Notes

May 27, 2016

Dr. Gerold Bepler offered congratulations to the following Karmanos faculty members who have been promoted. These promotions are effective August 18, 2016 and will be celebrated on June 8 at the Wayne State University annual promotion and tenure reception.

Please join Drs. Bepler and Shijie Sheng in applauding our Tumor Biology and Microenvironment Program members:

Promoted to the rank of professor
Suzanne Jacques, M.D. - Pathology
Faisal Qureshi, M.D., - Pathology

Promoted to the rank of associate professor
Abhinav Deol, M.D., - Oncology
Chunying Li, Ph.D. – Biochemistry/ Molecular Biology

April 12, 2016

sharing an important message from Dr. Gerold Bepler.....

"I want to thank **Shijie Sheng**, Ph.D., Tumor Biology and Microenvironment (TBM) Program leader, for her leadership of the program since its creation in 2012 and through the successful renewal of our Core Center Support Grant. Dr. Sheng has decided to step down from her leadership role to focus on her own laboratory research. Dr. Sheng will remain as program leader until a placement is found. We will start a national search for a basic scientist to lead the program, and Dr. Sheng has agreed to chair the search committee.

Members of Karmanos' Tumor Biology and Microenvironment Program collectively focus on the biological processes and underlying molecular mechanisms of tumor metastasis, the predominant cause of cancer morbidity and mortality. Through this program, we have expanded our research scope to better support the comprehensiveness and translatability of our research.

On behalf of Karmanos Cancer Institute, thank you Dr Sheng for your dedication to our mission and for your ongoing support as we search for the next TBM Program leader."

Gerold Bepler, M.D., Ph.D.

2016 – Wayne State University Campus news

April 6: Our Program members Drs. **Ceilia L. Speyer** and **David H. Gorski** were participants in the Tenth annual David Fromm research and Wayne State University Surgical Alumni Day. The work was titled "Riluzole: a nontoxic treatment for breast cancer" with collaborators MA Hasar, AH Hachem, MA Bukhsh, WS Jafry and RM Khansa.

April 26: The Wayne State University Board of Governors and President M. Roy Wilson recognized our Program members for years of service with the University at a reception held at the McGregor Center.

Our Tumor Biology and Microenvironment Program honorees:

Alexander Gow
Anjum Sohail

Lawrence Grossman
Cecilia Speyer

Voravit Ratanatharathorn
Ellen Tisdale

Recent presentations, abstracts and posters

Dr **Kang Chen**, in collaboration with Dr **Shijie Sheng** and other colleagues are pleased to share the news their manuscript has been accepted in the respected journal *Oncotarget*. This work is titled "Migration-inducing protein 7 promotes tumorigenesis and angiogenesis and independently predicts poor prognosis of epithelial ovarian cancer". PMID: 27050277 (see abstract below)

Drs. **Felix R. Fernandez-Madrid**, **Lawrence Grossman** and colleagues presented their work on breast cancer at the 10th International Congress of Autoimmunity in Leipzig, Germany. This work, titled "The autoantibody profile in breast cancer sera suggests that autoimmunity is involved in its pathogenesis" has clear implications for clinical trials. Please contact Drs. Ferandez-Madrid or Grossman if you are interested in collaborating on this topic.

Wayne State Prognosis E-News, April 20, 2016

Dr. **Ramesh Batchu's** laboratory findings were featured in a recent edition of the E-news. His team works on pancreatic, ovarian cancer vaccines and presented at surgery conferences in March and April.

<http://prognosis.med.wayne.edu/article/batchu-labs-findings-in-pancreatic-ovarian-cancer-vaccines-presented-at-surgery-conferences>



New Funding \$\$\$\$

Drs. **Menq-Jer Lee** and **Fulvio Lonardo** are this year's recipients' of the Karmanos Cancer Institute Strategic Research Initiative Grant. The title of their project is "Sphingosin-1-phosphate receptor subtype 3 in oncogenic K-Ras mutant driven lung adenocarcinomas". The award is \$50,000 for one year.

Dr. **Qing-Sheng Mi**, our Program member, and colleague at Henry Ford Health System, received three new awards as follows:
NIH/ NIAMS: Roles of HDAC3 in epidermal Langerhans cell ontology and function (5 years)
NIH/ NAID: miRNAs and NKT cell development and function (5 years)
NIH/ NIAID: Serum miRNA biomarkers of islet autoimmunity (4 years)

Dr. **Benjamin Kidder** received a new three year funding award (K22) from the NIH for his project titled "Regulation of chromatin and genome stability by the H4K20 methyltransferase SMYD5". Total funding \$747,000

Dr. **Hyeong-Reh Choi Kim** received new funding support (R01), now totaling 10 years of funding, from the NIH for her project titled "PDGF D and prostate cancer bone metastasis". \$1,763,282

Dr. **Wei Zen Wei** received renewal of a five year grant from the National Cancer Institute for work on breast cancer vaccines, a successful model to target molecules present in cancers including breast, prostate, lung, gastric and ovarian. \$1,539,000. Other collaborators include Program member **Haipeng Liu** and colleagues Heather Gibson, Gregory Dyson and Richard Jones.

Dr. **Jian-Ping Jin** received a four year R01 for his work titled "Regulation of Troponin I in cardiac adaptation and failure". This research will combine "the complementary expertise of several research laboratories to study the function and production of N-terminal truncated cardiac troponin I for the ultimate goal of translating this novel molecular mechanism into the development of a new treatment for diastolic heart failure." Read the full story here:

<http://prognosis.med.wayne.edu/archive-articles.php?year=2016&month=04&type=1>

In the News –

New lab techniques have provided the first good look at a crucial but mysterious stage in the development of human embryos, scientists reported Wednesday. The researchers said follow-up research might eventually lead to new treatments for infertility and perhaps new forms of birth control. The work extends the amount of embryonic development that can be observed in a laboratory. "It gives us all kinds of new ideas to work on," said **D. Randall Armant** of Wayne State University in Detroit.

<http://www.usnews.com/news/science/articles/2016-05-04/laboratory-advance-provides-view-of-early-embryo-development>

Hot off the Press – SELECTION OF PUBLICATIONS

Roma AA, Mistretta TA, De Vivar AD, Park KJ, Alvarado-Cabrero I, Rasty G, Chanona-Vilchis JG, Mikami Y, Hong SR, Teramoto N, Ali-Fehmi R, Barbuto D, Rutgers JK, Silva EG

New pattern-based personalized risk stratification system for endocervical adenocarcinoma with important clinical implications and surgical outcome

Gynecol Oncol. 2016 Apr;141(1):36-42.

PMID: 27016227

Samarasinghe KT, Munkanatta Godage DN, Zhou Y, Ndombera FT, Weerapana E, **Ahn YH**

Mol Biosyst. 2016 May 24. [Epub ahead of print]

A clickable glutathione approach for identification of protein glutathionylation in response to glucose metabolism

PMID: 27216279

Thomas S, Hussein Y, Bandyopadhyay S, Cote M, Hassan O, Abdulfatah E, Alesh B, Guan H, Soslow RA, **Ali-Fehmi R**

Interobserver Variability in the Diagnosis of Uterine High-Grade Endometrioid Carcinoma

Arch Pathol Lab Med. 2016 May 3. [Epub ahead of print]

PMID: 27139150

Wu SY, Rupaimoole R1, Shen F, Pradeep S, Pecot CV, Ivan C, Nagaraja AS, Gharpure KM, Pham E, Hatakeyama H, McGuire MH, Haemmerle M, Vidal-Anaya V, Olsen C, Rodriguez-Aguayo C, Filant J, Ehsanipour EA, Herbrich SM, Maiti SN, Huang L, Kim JH, Zhang X, Han HD, Armaiz-Pena GN, Seviour EG, Tucker S, Zhang M, Yang D, Cooper LJ, **Ali-Fehmi R**, Bar-Eli M, Lee JS, Ram PT11, Baggerly KA, Lopez-Berestein G, Hung MC, Sood AK.

A miR-192-EGR1-HOXB9 regulatory network controls the angiogenic switch in cancer

Nat Commun. 2016 Apr 4;7:11169. PMID: 27041221

Approximately March 10 – May 27, 2016



Cornely OA, Duarte RF, Haider S, **Chandrasekar P**, Helfgott D, Jiménez JL, Candoni A, Raad I, Laverdiere M, Langston A, Kartsonis N, Van Iersel M, Connolly N, Waskin H

Phase 3 pharmacokinetics and safety study of a posaconazole tablet formulation in patients at risk for invasive fungal disease

J Antimicrob Chemother. 2016 Mar 8. [Epub ahead of print]

No abstract available

PMID: 26960721

Wahba MR, Surapaneni M, **Chandrasekar PH**

Successful therapy with Ledipasvir/Sofosbuvir for hepatitis C reactivation in a hematopoietic stem cell transplant recipient

Leuk Lymphoma. 2016 Mar 21:1-3. [Epub ahead of print]

PMID: 26998960

Agarwal N, **Ansari A**

Enhancement of Transcription by a Splicing-Competent Intron Is Dependent on Promoter Directionality

PLoS Genet. 2016 May 6;12(5)

PMID: 27152651

Rezaeian I, Tavakoli A, **Cavallo-Medved D**, **Porter LA**, Rueda L

A Novel Model Used to Detect Differential Splice Junctions as Biomarkers in Prostate Cancer from RNA-Seq Data

J Biomed Inform. 2016 Mar 15. [Epub ahead of print] **PMID: 26992567**

Jain T, John J, Kotecha A, Deol A, Saliminia T, Revankar S, **Chandrasekar P**

Ann Hematol. 2016 May 25. [Epub ahead of print]

Cytomegalovirus infection in autologous stem cell transplant recipients in the era of rituximab **PMID: 27225264**

Parker GC, Carruthers NJ, Gratsch T, **Caruso JA**, **Stemmer PM**

Proteomic profile of embryonic stem cells with low survival motor neuron protein is consistent with developmental dysfunction

J Neural Transm (Vienna). 2016 May 5. [Epub ahead of print] **PMID: 27145767**

Garcia-Rodriguez L, Jones L, Chen KM, **Datta I**, Divine G, **Worsham MJ**

Causal network analysis of head and neck keloid tissue identifies potential master regulators

Laryngoscope. 2016 Mar 18. [Epub ahead of print] **PMID: 26990118**

Huang B, Yin M, Li X, Cao G, Qi J, Lou G, **Sheng S**, Kou J, **Chen K**, Yu B

Oncotarget. 2016 Mar 30. [Epub ahead of print]

Migration-Inducing Gene 7 promotes tumorigenesis and angiogenesis and independently predicts poor prognosis of epithelial ovarian cancer **PMID: 27050277**

Broome DT, **Datta NS**

Mitogen-activated protein kinase phosphatase-1: function and regulation in bone and related tissues

Connect Tissue Res. 2016 Mar 31:1-15. [Epub ahead of print] **PMID: 27031422**

Cho WJ, Oliveira DS, Najy AJ, Mainetti LE, Aoun HD, **Cher ML**, Heath E, **Kim HR**, **Bonfil RD**

Gene expression analysis of bone metastasis and circulating tumor cells from metastatic castrate-resistant prostate cancer patients J Transl Med. 2016 Mar 15;14(1):72. **PMID: 26975354**

Bowdin S, Gilbert A, Bedoukian E, Carew C, Adam MP, Belmont J, Bernhardt B, Biesecker L, Bjornsson HT, Blitzer M, D'Alessandro LC, Deardorff MA, Demmer L, Elliott A, **Feldman GL**, et al.

Recommendations for the integration of genomics into clinical practice

Genet Med. 2016 May 12. doi: 10.1038/gim.2016.17. [Epub ahead of print] **PMID: 27171546**

Liao G, Zhou Z, Suryawanshi S, Mondal MA, **Guo Z**

Fully Synthetic Self-Adjuvanting α -2,9-Oligosialic Acid Based Conjugate Vaccines against Group C Meningitis

ACS Cent Sci. 2016 Apr 27;2(4):210-8. Epub 2016 Apr 4. **PMID: 27163051**



Nakajima K, Kho DH, Yanagawa T, Zimel M, Heath E, Hogan V, **Raz A**

Galectin-3 in bone tumor microenvironment: a beacon for individual skeletal metastasis management

Cancer Metastasis Rev. 2016 Apr 11. [Epub ahead of print]

PMID: 27067726

Boriack-Sjodin PA, Jin L, **Jacques SL**, Drew A, Sneeringer C, Scott MP, Moyer MP, Ribich S, Moradei O, Copeland RA
ACS Chem Biol. 2016 Mar 18;11(3):763-71. Epub 2015 Nov 23.

Structural Insights into Ternary Complex Formation of Human CARM1 with Various Substrates

PMID: 26551522

Honn KV, Guo Y, Cai Y, Lee MJ, Dyson G, Zhang W, Tucker SC

12-HETER1/GPR31, a high-affinity 12(S)-hydroxyeicosatetraenoic acid receptor, is significantly up-regulated in prostate cancer and plays a critical role in prostate cancer progression

FASEB J. (Federation of American societies for experimental biology) 2016 Mar 10. [Epub ahead of print]

PMID: 26965684

Wojtukiewicz MZ, Hempel D, Sierko E, Tucker SC, **Honn KV**

Cancer Metastasis Rev. 2016 May 17. [Epub ahead of print]

Thrombin-unique coagulation system protein with multifaceted impacts on cancer and metastasis

PMID: 27189210

Ebrahim AS, Sabbagh H, Liddane A, Raufi A, **Kandouz M**, Al-Katib A

Hematologic malignancies: newer strategies to counter the BCL-2 protein

J Cancer Res Clin Oncol. 2016 Apr 4. [Epub ahead of print]

PMID: 27043233

Kowluru RA, Mishra M, Kumar B

Diabetic retinopathy and transcriptional regulation of a small molecular weight G-Protein, Rac1

Exp Eye Res. 2016 Apr 21. [Epub ahead of print]

PMID: 27109029

Minic Z, Zhang Y, **Mao G**, Goshgarian HG

Transporter Protein-Coupled DPCPX Nanoconjugates Induce Diaphragmatic Recovery after SCI by Blocking Adenosine A1 Receptors

J Neurosci. 2016 Mar 23;36(12):3441-52.

PMID: 27013674

Zhang Y, Walker JB, Minic Z, Liu F, Goshgarian H, **Mao G**

Sci Rep. 2016 May 16;6:25794. doi: 10.1038/srep25794.

Transporter protein and drug-conjugated gold nanoparticles capable of bypassing the blood-brain barrier.

PMID: 27180729

Yoon HJ, Shanker A, Wang Y, Kozminsky M, Jin Q, **Palanisamy N**, Burness ML, Azizi E, Simeone DM, Wicha MS, Kim J, Nagrath S
Adv Mater. 2016 Apr 26. [Epub ahead of print]

Tunable Thermal-Sensitive Polymer-Graphene Oxide Composite for Efficient Capture and Release of Viable Circulating Tumor Cells

PMID: 27115557

Murray AS, Varela FA, **List K**

Type II transmembrane serine proteases as potential targets for cancer therapy

Biol Chem. 2016 Apr 14. [Epub ahead of print] **PMID: 27078673**

Wei Q, Liu Y, Liu P, Hao J, Liang M, **Mi QS**, Chen JK, Dong Z

MicroRNA-489 Induction by Hypoxia-Inducible Factor-1 Protects against Ischemic Kidney Injury

J Am Soc Nephrol. 2016 Mar 14. **PMID: 26975439**



Oncotarget. 2016 May 21. doi: 10.18632/oncotarget.9546. [Epub ahead of print]

TIM-4 is differentially expressed in the distinct subsets of dendritic cells in skin and skin-draining lymph nodes and controls skin langerhans cell homeostasis

Zhang X, Liu Q, Wang J, Li G, Weiland M, Yu FS, **Mi QS**, Gu J, Zhou L **PMID: 27224924**

Shah AA, Shakoor A, Zogg CK, Oyetunji T, Ashfaq A, Garvey EM, Latif A, Riviello R, **Qureshi FG**, Mateen A, Haider AH, Zafar H

Influence of sub-specialty surgical care on outcomes for pediatric emergency general surgery patients in a low-middle income country

Int J Surg. 2016 Mar 10;29:12-18. [Epub ahead of print] **PMID: 26971828**

Herroon MK, Sharma R, Rajagurubandara E, Turro C, Kodanko JJ, **Podgorski I**

Photoactivated inhibition of cathepsin K in a 3D tumor model

Biol Chem. 2016 Jun 1;397(6):571-82. **PMID: 26901495**

Xie Y, Kim NH, Nadiathe V, Schalk D, **Thakur A**, Kılıç A, **Lum LG**, Bassett DJ, Merkel OM

Targeted delivery of siRNA to activated T cells via transferrin-polyethylenimine (Tf-PEI) as a potential therapy of asthma

J Control Release. 2016 May 10;229:120-9. Epub 2016 Mar 19. **PMID: 27001893**

Farhana L, Antaki F, Anees MR, **Nangia-Makker P**, Judd S, Hadden T, Levi E, Murshed F, Yu Y, Van Buren E, Ahmed K, Dyson G, Majumdar AP

Role of cancer stem cells in racial disparity in colorectal cancer

Cancer Med. 2016 Mar 14. [Epub ahead of print] **PMID: 26990997**

Bazzi ZA, Lanoue D, El-Youssef M, Romagnuolo R, Tubman J, **Cavallo-Medved D**, **Porter LA**, Boffa MB

BMC Cancer. 2016 May 24;16(1):328. doi: 10.1186/s12885-016-2359-1.

Activated thrombin-activatable fibrinolysis inhibitor (TAFIa) attenuates breast cancer cell metastatic behaviors through inhibition of plasminogen activation and extracellular proteolysis **PMID: 27221823**

Pasquini MC, Le-Rademacher J, Zhu X, Artz A, DiPersio J, Fernandez H, Mineishi S, Kamishohara M, Mehta J, Nakamura Y, **Ratanatharathorn V**, Sobecks R, Burkart J, Bredeson C

Intravenous Busulfan-Based Myeloablative Conditioning Regimens Prior to Hematopoietic Cell Transplantation for Hematologic Malignancies

Biol Blood Marrow Transplant. 2016 May 3. [Epub ahead of print] **PMID: 27154848**

Barrett KG, Fang H, **Kocarek TA**, **Runge-Morris M**

Transcriptional Regulation of SULT1C2 by Vitamin D Receptor in LS180 Human Colorectal Adenocarcinoma Cells

Drug Metab Dispos. 2016 Apr 29. [Epub ahead of print] **PMID: 27130351**

Nusrat O, Belotte J, Fletcher NM, Memaj I, Saed MG, Diamond MP, **Saed GM**

The Role of Angiogenesis in the Persistence of Chemoresistance in Epithelial Ovarian Cancer

Reprod Sci. 2016 Apr 26. [Epub ahead of print] **PMID: 27122375**

Hwang C, Sethi S, Heilbrun LK, Gupta NS, Chitale DA, **Sakr WA**, Menon M, Peabody JO, Smith DW, **Sarkar FH**, Heath EI

Anti-androgenic activity of absorption-enhanced 3, 3'-diindolylmethane in prostatectomy patients

Am J Transl Res. 2016 Jan 15;8(1):166-76. **PMID: 27069550**

Speyer CL, Nassar MA, Hachem AH, Bukhsh MA, Jafry WS, Khansa RM, **Gorski DH**

Riluzole mediates anti-tumor properties in breast cancer cells independent of metabotropic glutamate receptor-1

Breast Cancer Res Treat. 2016 May 4. [Epub ahead of print] **PMID: 27146584**

Chaubal A, **Todi SV**, Pile LA

Inter-isoform-dependent Regulation of the Drosophila Master Transcriptional Regulator SIN3

J Biol Chem. 2016 Apr 20. [Epub ahead of print] **PMID: 27129248**



...An intra - collaborative work – Dr. Vaishampayan (TBM Program) and Dr. Gayar (Molecular Imaging Program) and Dr. Heath (Molecular Therapeutics Program)

Modi D, Hwang C, Mamdani H, Kim S, Gayar H, **Vaishampayan U**, Joyrich R, Heath EI

Radium-223 in Heavily Pretreated Metastatic Castrate-Resistant Prostate Cancer

Clin Genitourin Cancer. 2016 Mar 10. [Epub ahead of print] **PMID: 27053499**

Narayanan S, Lam A, **Vaishampayan U**, Harshman L, Fan A, Pachynski R, Poushnejad S, Haas D, Li S, Srinivas S

Phase II Study of Pazopanib and Paclitaxel in Patients With Refractory Urothelial Cancer

Clin Genitourin Cancer. 2016 Mar 12. [Epub ahead of print] **PMID: 27068017**

Thakur MK, **Vaishampayan U**

Multifaceted and personalized therapy of advanced prostate cancer

Curr Opin Oncol. 2016 May;28(3):222-31. **PMID: 26992199**

McKay RR, De Velasco G, Werner L, Bellmunt J, Harshman L, Sweeney C, Rosenberg JE, Hirsch M, Signoretti S, Van Allen EM, Walsh M, **Vaishampayan U**, McDermott DF, Choueiri TK

A phase 1 study of buparlisib and bevacizumab in patients with metastatic renal cell carcinoma progressing on vascular endothelial growth factor-targeted therapies

Cancer. 2016 May 19. doi: 10.1002/cncr.30056. [Epub ahead of print] **PMID: 27198170**

Bhadurihauck A, Li L, Li Q, **Wang J**, Xiao Z

Transient exposure to proteins SOX2, Oct-4, and NANOG immortalizes exhausted tumor-infiltrating CTLs

Biochem Biophys Res Commun. 2016 May 13;473(4):1255-60. Epub 2016 Apr 12. **PMID: 27084449**

Ha SW, Ju D, Hao W, **Xie Y**

Rapidly Translated Polypeptides Are Preferred Substrates for Cotranslational Protein Degradation

J Biol Chem. 2016 Apr 29;291(18):9827-34. Epub 2016 Mar 9. **PMID: 26961882**

Public link to abstracts on Pub Med TBM Program, Q2, 2016:

Please click or cut and paste into your browser

<http://www.ncbi.nlm.nih.gov/sites/myncbi/1FYGjcDKXgCAs/collections/50242371/public/>