Accolades and Newsworthy Notes

We were superbly pleased to know Dr. Sree Chinni represented Karmanos Cancer Institute and the Tumor Biology and Microenvironment Program in New Mexico! Dr. Chinni was selected to give an oral presentation on his work titled "P13K pathways in immunology, growth disorders and cancer".

The Keystone Symposia series are highly regarded as scientific environments to promote exchange of knowledge. The selection process is highly competitive with an advisory board representatives from government, academics and industry.

New Funding $$$$$

In a very humble manner these funding successes were announced:
Awarded.
NIH/NCI R21CA216648-01 (PI: Wei-Zen Wei and Nerissa Viola-Villegas) 4/1/17 – 3/31/19
Directing Cancer Immunotherapy with Real-time ImmunoPET
Ranked at 1% by NCI study section in October, 2016.

Submitted and scored. Final decision pending.
NIH/NCI 1 R21 CA216650-01 (PI: MJ Lee)
We submitted a R21 on July 2016, and scored well (3 percentile).
Sphingosine-1-phosphate receptor subtype 3 in oncogenic K-Ras mutant-driven lung adenocarcinoma
Co-investigators: Fulvio Lonardo, Young-Hoon Ahn, Wei Chen

A tribute to our Cancer Biology Program Warrior Scholars!

Congratulations to John Diedrich!
Recipient of the coveted F31 Ruth L. Kirschstein National Research Service Award

The works of Lisa Abernathy and Matthew Fountain are highlighted below.

NOTE: Photos courtesy of Wayne State website graduate exhibition and Program retreats
Our Warrior scholar John Diedrich, mentored under Dr. Izabela Podgorski, received the coveted F31 Ruth L. Kirschstein National Research Service Award. John will study how tumor cells become resistant to therapies to survive in the bone marrow by using lipids provided by fat cells. John’s story was highlighted on our WSU SOM website: https://www.med.wayne.edu/news/2017/01/06/cancer-biologys-john-diedrich-wins-nih-f31-training-grant-for-prostate-cancer-research/

Lisa M. Abernathy and Matthew D. Fountain, mentored under Dr. Gali Hillman, received notice their manuscript had been accepted in the Journal for ImmunoTherapy of Cancer. This prestigious journal of the Society for Immunotherapy of Cancer (SITC) has high visibility. They appreciate their funding (past) from the French company Transgene (part of the Institut Mérieux) who had already tested the combination MVA-MUC1-IL-2 vaccine with chemotherapy for advanced NSCLC patients and shown the safety of the vaccine. Their studies in the mouse model demonstrate the potential of combining this vaccine with radiotherapy leading to complete anti-tumor immune responses and specific immunity which are not observed if either therapy is used as a single modality. These studies are in the frontline of the field because of a great interest about combining radiotherapy and immunotherapy/cancer vaccine approaches with over 40 ongoing national trials.

A second manuscript was accepted by Frontiers in Oncology. Lisa M. Abernathy, as first author, has her second publication with Dr. Hillman’s team. Titled: Innate immune pathways associated with lung radioprotection by soy isoflavones. See below for details. https://doi.org/10.3389/fonc.2017.00007

Hot off the Press – SELECTION OF PUBLICATIONS

Dr. Shijie Sheng and her team received news -- they have a paper accepted in Cancer Research! Sijana Dzinic, a co-author on the paper, and Shijie shared joy, laughter and hugs as they recounted the tremendous effort over seven years for this work. Let’s take a moment and thank all the mice who have helped in our research efforts (squeak squeak). PMID: 27923833

Cancer Res. 2016 Dec 6
An essential role of maspin in embryogenesis and tumor suppression
PMID: 27923833

Oncotarget. 2016 Nov 11
The secretion and biological function of tumor suppressor maspin as an exosome cargo protein
PMID: 28009978

Dr. Kang Chen’s team received notice their work is to be published in the respected journal Nature Medicine with co-authors Wei-Zen Wei and Bihui Huang. Please note Dr. Bihui Huang served as a Judge during our poster competition and we appreciate his interaction with our students. http://www.nature.com/nm/journal/vaop/ncurrent/full/nm.4244.html

Interleukin-33-induced expression of PIBF1 by decidual B cells protects against preterm labor
PMID: 27918564

…Two is our lucky number… as noted in these doublet examples…

Dr. Gali Hillman started the new year with news of TWO papers for her team.

Front. Oncol., 23 January 2017
Innate Immune Pathways Associated with Lung Radioprotection by Soy Isoflavones
Lisa M. Abernathy, Matthew D. Fountain, Michael C. Joiner and Gilda G. Hillman
https://doi.org/10.3389/fonc.2017.00007
Radiotherapy and MVA-MUC1-IL-2 vaccine act synergistically for inducing specific immunity to MUC-1 tumor antigen
Hillman GG, Reich LA, Rothstein SE, Abernathy LM, Fountain MD, Hankerd K, Yunker CK, Rakowski JT, Quemeneur E, Slos P. PMID: 28116088

_in addition to being a co-investigator on the new grant above, Dr. Ahn has two papers to note…_

Clickable glutathione using tetrazine-alkene bioorthogonal chemistry for detecting protein glutathionylation
Kekulandara DN, Samarasinghe KT, Munkanatta Godage DN, Ahn YH. PMID: 27812596

TGF-β/Smad3 Pathway Stimulates Sphingosine-1 Phosphate Receptor 3 Expression: IMPLICATION OF SPHINGOSINE-1 PHOSPHATE RECEPTOR 3 IN LUNG ADENOCARCINOMA PROGRESSION

…two must be our lucky number as Dr. Hendrickson also notes two papers to share….

OB or Not OB: Idiosyncratic utilization of the tRNA-binding OB-fold domain in unicellular, pathogenic eukaryotes
Kapps D, Cela M, Théobald-Dietrich A, Hendrickson T, Frugier M. PMID: 27714804

Characterization of tunnel mutants reveals a catalytic step in ammonia delivery by an aminoacyl-tRNA amidotransferase
Zhao L, Rathnayake UM, Dewage SW, Wood WN, Velttri AJ, Cisneros GA, Hendrickson TL. PMID: 27500385

…Dr. Grannenman inked two papers here and one above with Dr. Sheng….

Sex differences in sympathetic innervation and browning of white adipose tissue of mice
Kim SN, Jung YS, Kwon HJ, Seong JK, Granneman JG, Lee YH. PMID: 27990249

Metabolic heterogeneity of activated beige/brite adipocytes in inguinal adipose tissue
Lee YH, Kim SN, Kwon HJ, Granneman JG. PMID: 28045125

…and Dr. Nangia-Makker’s quill splattered our minds with insight sharing two papers with us…

Bile acid: a potential inducer of colon cancer stem cells

…and Dr. Palanisamy offers two new studies…

Renal Cell Carcinoma With Chromosome 6p Amplification Including the TFEB Gene: A Novel Mechanism of Tumor Pathogenesis?
Williamson SR, Grignon DJ, Cheng L, Favazza L, Gondim DD, Carskadon S, Gupta NS, Chitale DA, Kalyana-Sundaram S, Palanisamy N. PMID: 28009604

Inflammation-Induced Oxidative Stress Mediates Gene Fusion Formation in Prostate Cancer
... and two for the road as Dr. Chunying Li finishes his work with us...

**AIMS Biophys. 2017;4(1):1-18**  
New open conformation of SMYD3 implicates conformational selection and allostery  
**PMID: 28050603**

**AIMS Biophys. 2016;3(4):450-455**  
SMYD proteins in immunity: dawning of a new era  
Doughan M, Spellmon N, **Li C**, Yang Z.  
**PMID: 27790639**

...dare I say Dr. Todi also offers two new papers....

**Sci Rep. 2016 Dec 5;6:38510**  
Inhibition of alpha-synuclein aggregation by multifunctional dopamine agonists assessed by a novel in vitro assay and an in vivo Drosophila synucleinopathy model  
Yedlapudi D, Joshi GS, Luo D, **Todi SV**, Dutta AK.  
**PMID: 27917933**

**Biol Open. 2016 Dec 15;5(12):1770-1775**  
Polyglutamine length-dependent toxicity from α1ACT in Drosophila models of spinocerebellar ataxia type 6  
Tsou WL, Qiblawi SH, Hosking RR, Gomez CM, **Todi SV**.  
**PMID: 27979829**

...and it’s not really about the numbers...we have a examples of excellent work from our Program members this cycle...touching upon our themes of Prostate cancer, development of small molecule anti-tumor agents, epigenetics, signaling and more...also reaching from the laboratory to the clinic...

**Curr Diab Rep. 2016 Dec;16(12):133**  
MicroRNAs in Type 1 Diabetes: Complex Interregulation of the Immune System, β Cell Function and Viral Infections  
Isaacs SR, Wang J, Kim KW, Yin C, Zhou L, **Mi QS**, Craig ME.  
**PMID: 27844276**

Phosphorylation of Cytochrome c Threonine 28 Regulates Electron Transport Chain Activity in Kidney: IMPLICATIONS FOR AMP KINASE  
**PMID: 27758862**

**Sci Transl Med. 2016 Nov 2;8(363):363re4**  
Fetal genome profiling at 5 weeks of gestation after noninvasive isolation of trophoblast cells from the endocervical canal  
**PMID: 27807286**

**Infect Drug Resist. 2016 Dec 7;9:291-300**  
Isavuconazole for the treatment of invasive aspergillosis and mucormycosis: current evidence, safety, efficacy, and clinical recommendations  
Natesan SK, **Chandrasekar PH**.  
**PMID: 27994475**

**Mol Cancer. 2016 Nov 3;15(1):68**  
Pharmacological targeting of CXCL12/CXCR4 signaling in prostate cancer bone metastasis  
Conley-LaComb MK, Semaan L, Singareddy R, Li Y, Heath El, Kim S, **Cher ML**, Chinni SR.  
**PMID: 27809841**

The biological significance of methylome differences in human papilloma virus associated head and neck cancer  
**PMID: 28101231**

**Exp Cell Res. 2016 Dec 20**
Convergence of eicosanoid and integrin biology: Role of Src in 12-LOX activation  

Clin Genitourin Cancer. 2016 Dec 1  
Role of Molecular Profiling in Diagnosis of Papillary Renal-cell Cancer Presenting as Cancer of Unknown Primary Site  
Nagasaka M, Kukreja G, Abdulfatah E, Vaishampayan U, Sukari A. PMID: 28024951

Biochemistry. 2016 Nov 1;55(43):6046-6055  
Deletion of Calponin 2 in Mouse Fibroblasts Increases Myosin II-Dependent Cell Traction Force  

Oncotarget. 2016 Nov 29;7(48):79203-79216  
Spatio-temporal regulation of EGFR signaling by the Eps15 homology domain-containing protein 3 (EHD3)  

J Biol Chem. 2016 Dec 9;291(50):25983-25998  
The Amino-terminal Domain of the Androgen Receptor Co-opt Extracellular Signal-regulated Kinase (ERK) Docking Sites in ELK1 Protein to Induce Sustained Gene Activation That Supports Prostate Cancer Cell Growth  
Rosati R, Patki M, Chari V, Dakshnamurthy S, McFall T, Saxton J, Kidder BL, Shaw PE, Ratnam M. PMID: 27793987

Free Radic Biol Med. 2017 Feb;103:155-164  
Epigenetic regulation of redox signaling in diabetic retinopathy: Role of Nrf2  
Kowluru RA, Mishra M. PMID: 28012783

FEBS J. 2016 Nov 21  
The role of type II transmembrane serine protease-mediated signaling in cancer  
Tanabe LM, List K. PMID: 27870503

GAPDH binds Akt to facilitate cargo transport in the early secretory pathway  
Tisdale EJ, Talate NK, Artalejo CR, Shisheva A. PMID: 27818247

Open Biol. 2016 Dec;6(12)  
Primate-specific oestrogen-responsive long non-coding RNAs regulate proliferation and viability of human breast cancer cells.  

BJU Int. 2016 Nov 8  
Management and outcomes of patients with renal medullary carcinoma: a multicentre collaborative study  

Evaluation of BGJ398, a Fibroblast Growth Factor Receptor 1-3 Kinase Inhibitor, in Patients With Advanced Solid Tumors Harboring Genetic Alterations in Fibroblast Growth Factor Receptors: Results of a Global Phase I, Dose-Escalation and Dose-Expansion Study  
Nogova L, Sequist LV, Perez Garcia JM, Andre F, Delord JP, Hidalgo M, Schellens JH, Cassier PA, Camidge DR, Schuler M, Vaishampayan U et al. PMID: 27870574

Clin Genitourin Cancer. 2016 Oct 29  
Impact of Sequencing Targeted Therapies With High-dose Interleukin-2 Immunotherapy: An Analysis of Outcome and Survival of Patients With Metastatic Renal Cell Carcinoma From an On-going Observational IL-2 Clinical Trial: PROCLAIMSM.  
ER Stress-induced Inflammasome Activation Contributes to Hepatic Inflammation and Steatosis
Zhang J, Zhang K, Li Z, Guo B.  PMID: 27942420

Lancet. 2017 Jan 7;389(10064):67-76
Atezolizumab as first-line treatment in cisplatin-ineligible patients with locally advanced and metastatic urothelial carcinoma: a single-arm, multicentre, phase 2 trial

Cancer Med. 2016 Dec 20
Venous thromboembolism in metastatic urothelial carcinoma or variant histologies: incidence, associative factors, and effect on survival

Invest New Drugs. 2017 Jan 9
First-in-human trial of an anti-5T4 antibody-monomethylauristatin conjugate, PF-06263507, in patients with advanced solid tumors
Shapiro GI, Vaishampayan UN, LoRusso P, Barton J, Hua S, Reich SD, Shazer R, Taylor CT, Xuan D, Borghaei H  PMID: 28070718

Public link to abstracts on Pub Med TBM Program, Q1, 2017:
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https://www.ncbi.nlm.nih.gov/sites/myncbi/1FYGjcDKXgCAs/collections/51902270/public/