

## Chair's Column

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## Spotlights

Dr. Satish Srivastava received an RO1 for the project titled "Role of Aldose Reductase in Diabetic Complications"

Dr. Rovshan Sadygov received an RO1 for the project titled "Data-Driven Models of the Dynamic Proteome in NAFLD"

Pilot Awards given to Drs. Muge Martinez, Rovshan Sadygov and Werner Braun.

Congratulations to Pawel Bujalowski (MBET) for a successful final defense.

Dear BMB colleagues,

February and the first half of March have been productive times for the department – the first phase of the search is done and we have three candidates coming for second visits: Eric Wagner and Mike Harris, both visiting this week, and Andrew Routh (coming in mid April). One more time I want to thank the search committee and in particular the co-chairs Junji and Jim for a job extremely well done.

## Announcements from my office

1. I have one announcement to make re administration of Department duties: I have named a third vice chair – I have asked Wlodek Bujalowski to be the vice-chair for research and he has accepted. He, Jim Lee and Tom Wood form a strong leadership team that will help me and BMB in three key missions: research, education and service.

## Departmental news (these are some highlights):

Several publications listed BMB members as co-authors – indeed a bumper crop, see publications section below: **Congratulations to all co-authors!**

In the grants department we also did very well recently. Two BMB faculty members, Satish Srivastava and Rovshan Sadygov, received new RO1 grants from NIH – congratulations to both of them! Three faculty members were awarded BMB pilot grants – Muge Martinez, Rovshan Sadygov and Werner Braun – congratulations!

In the national service arena I want to highlight John Papaconstantinou's participation in a National Institute on Aging Study Section for the review of Nathan Shock Centers, which focus on basic research on aging.

On the education side I want thank Tracy Toliver-Kinsky and JoAlice Whitehurst, and all other faculty and students who participated in our recruitment visits. I also congratulate Pawel Bujalowski (MBET) on a successful thesis defense.

Best wishes

Mariano

## Graduate Program News

A big **THANK YOU** to the **BCSO** and **individual BMB students** for their many efforts during the recent GSBS recruitment visits. Eight applicants visited and interviewed for positions in the BMB/MBET programs. The Admissions Committee would also like to thank the **faculty** who interviewed these applicants and provided feedback to assist in the selection of our future graduate students. And finally, we would like to thank **JoAlice Whitehurst** for her hard work in scheduling the interviews for our visitors.

-Tracy Toliver



## Publications

*Evolution of genome size and complexity in the rhabdoviridae.* Walker PJ, Firth C, Widen SG, Blasdel KR, Guzman H, **Wood TG**, Paradkar PN, Holmes EC, Tesh RB, Vasilakis N. PLoS Pathog. 2015 Feb 13;11(2):e1004664. doi: 10.1371/journal.ppat.1004664. eCollection 2015 Feb.

*Orphan Toxin OrtT (YdcX) of Escherichia coli Reduces Growth during the Stringent Response.* Islam S, Benedik MJ, **Wood TG**. Toxins (Basel). 2015 Jan 29;7(2):299-321. doi: 10.3390/toxins7020299.

*Whole transcriptome analysis reveals an 8-oxoguanine DNA glycosylase-1-driven DNA repair-dependent gene expression linked to essential biological processes.* Aguilera-Aguirre L, Hosoki K, Bacsí A, Radák Z, **Wood TG**, Widen SG, Sur S, Ameredes BT, Saavedra-Molina A, Brasier AR, Ba X, Boldogh I. Free Radic Biol Med. 2015 Jan 19;81C:107-118. doi: 10.1016/j.freeradbiomed.2015.01.004

*Discovery of mosquito salivary microRNAs during CHIKV infection.* Maharaj PD, Widen SG, Huang J, **Wood TG**, Thangamani S. PLoS Negl Trop Dis. 2015 Jan 22;9(1):e0003386. doi: 10.1371/eCollection 2015 Jan.

*Insect-specific viruses detected in laboratory mosquito colonies and their potential implications for experiments evaluating arbovirus vector competence.* Bolling BG, Vasilakis N, Guzman H, Widen SG, **Wood TG**, Popov VL, Thangamani S, Tesh RB. Am J Trop Med Hyg. 2015 Feb 4;92(2):422-8. doi: 10.4269/ajtmh.14-0330. Epub 2014 Dec 15.

Bradeson S, **Papaconstantinou J**, Deford JH, Kachichian T, Syad TA, Saade GR, Menon R (2014) *HMGB1 Promotes a p38MAPK associated non-infectious inflammatory response pathway in human fetal membranes.* PLoS One DOI:10.1371/JOURNALPONA.0113788

Menon R, Boldogh I, Hawkins HK, Woodson M, Poletti J, Syad TA, Fortunato SJ, Saade, **Papaconstantinou J**, Taylor RN (2014). *Histological evidence of oxidative stress and premature senescence in preterm premature*

*rupture of the human fetal membranes recapitulated in vitro.* The Am dJ Pathol 184, 1740-1751.

Menon R, Boldogh I, Urrahaz-Garcia Rheanna, Poletti J, Syad TA, Saade GR, **Papaconstantinou J**, Taylor RN. (2013) *Senescence of primary amniotic cells via oxidative DNA damage.* PLOS One8, e83416

Kaur N, Dhiman M, **Perez-Polo JR**, Mantha AK. (2015) *Ginkgolide B revamps neuroprotective role of apurinic/apyrimidinic endonuclease 1 and mitochondrial oxidative phosphorylation against Aβ25-35-induced neurotoxicity in human neuroblastoma cells.* J Neurosci Res. doi: 10.1002/jnr.23565. PMID:

**Perez-Polo JR**; Rea HC; Johnson KM; Parsley MA; Unabia GC; Xu GY; Prough D; DeWitt DS; Spratt H; Hulsebosch CE. (2015) *A rodent model of mild traumatic brain blast injury.* J. Neurosci. Res. 93(4):549-61

Birnbaum Y; Nanhwan MK; Ling S; **Perez-Polo JR**; **Ye Y**; Bajaj M. (2015) *PTEN upregulation may explain the development of insulin resistance and type 2 diabetes with high dose statins.* Cardiovascular Drugs & Therapy. 28(5):447-57.

*Structural insights into the architecture of the hyperthermophilic Fusellovirus SSV1.* Stedman KM, DeYoung M, Saha M, **Sherman MB**, **Morais MC**. Virology. 2015 Jan 1;474:105-9 (Featured on the cover)

Hsu, W.J., Nenov, M., Shavkunov, A., Panova, N., Zhan, M., Laezza, F. (2015). Identifying a Kinase Network Regulating FGF14:Nav1.6 Complex Assembly Using Split-Luciferase Complementation. PLOS ONE. DOI: 10.1371/journal.pone.0117246.

Wildburger, N.C., Ali, S.R., Hsu, W.J., Shavkunov, A.S., Nenov, M.N., Lichti, C.F., LeDuc, R.D., Mostovenko, E., Panova, N., **Emmett, M.R.**, Nilsson, C.L., Laezza, F. (2015). *Quantitative Proteomics Reveals Protein-Protein Interactions with Fibroblast Growth Factor 12 and CaMKII as Components of the Nav1.2 Macromolecular Complex in Mammalian Brain.* Molecular & Cellular Proteomics. DOI: 10.1074/mcp.M114.040055 (in press).

*RNA: Jack of All Trades and Master of All.* Pompon J, **Garcia-Blanco MA**. Cell. 2015 Feb 12;160(4):579-80. doi: 10.1016/j.cell.2015.01.047.

## March Research Seminars

		12:00pm - 1:00pm <b>BMB Student Seminar</b> <u>Thomas Lucas</u> "TBA"
Mar 20	Fri	12:00pm - 1:00pm <b>PHTOX Seminar</b> <u>Jeffrey N. Myers</u> "Head and Neck Cancer Genomics: Where do we go from here?"
		4:00pm - 5:00pm <b>Keck Seminar</b> <u>Devika Subramanian</u> "Making (big) Data Speak: The Power of Statistical Machine Learning"
		10:00am - 11:00am <b>SPECIAL PRESENTATION</b> <u>Stephen Gordon</u> "Ingredients of a Successful Grant Application"
Mar 23	Mon	12:00pm - 1:00pm <b>Mitchell Center Seminar</b> <u>Yogi Wairkar</u> "Role of tumor suppressors in regulating synapse development"
		12:00pm - 1:00pm <b>NIEHS Seminar</b> <u>Allan R. Brasier</u> "Update on the chronic mucosal inflammation collaborative research team"
Mar 26	Thu	4:00pm - 5:00pm <b>Biochemistry Seminar</b> <u>Nisha Garg</u> "TBA"
Mar 27	Fri	12:00pm - 1:00pm <b>BMB Student Seminar</b> <u>Timi Folorunso</u> "TBA"
		4:00pm - 5:00pm <b>Keck Seminar</b> <u>Andrzej Kudlicki</u> UTMB

Apr 2	Thu	4:00pm - 5:00pm <b>Biochemistry Seminar</b> TBA
Apr 3	Fri	12:00pm - 1:00pm <b>BMB Student Seminar</b> <u>Barbara Rolls</u> "TBA"
Apr 6	Mon	12:00pm - 1:00pm <b>NIEHS Seminar</b> <u>Marxa Figueredo</u> "Environmental contaminant exposure and reprogramming of the stromal tumor microenvironment"
Apr 9	Thu	4:00pm - 5:00pm <b>Biochemistry Seminar</b> TBA
Apr 10	Fri	12:00pm - 1:00pm <b>BMB Student Seminar</b> <u>Arijit Dutta</u> "TBA"
		4:00pm - 5:00pm <b>Keck Seminar</b> TBA
Apr 13	Mon	12:00pm - 1:00pm <b>NIEHS Seminar</b> <u>James R. Halpert</u> "Structural Basis of Cytochrome P450 Specificity"
Apr 15	Wed	12:00pm - 1:00pm <b>NCB Seminar</b> <u>Joe Harding</u>
Apr 16	Thu	4:00pm - 5:00pm <b>Biochemistry Seminar</b> TBA
Apr 17	Fri	4:00pm - 5:00pm <b>Keck Seminar</b> Keck ARC Poster Winners