

## Chair's Column



Dr. Mariano Garcia-Blanco

July 2015, Issue 299

## Spotlights

Governor Greg Abbott appointed a student representative to serve on the Texas Higher Education Coordinating Board.

Representing the University of Texas System  
Justin Drake ,  
Department of Biochemistry and Molecular Biology

Justin, we are proud of you knowing that you will be an outstanding representative !!!!

Dear BMB colleagues,

This is the June and July joint issue of our 'monthly newsletter and there is a lot to tell:

The final announcement on the BMB faculty search for 2014-15: first the bad news and then a ton of good news:

Dr. Michael Harris (Case Western Reserve Univ.) did not accept our offer and in a very emotional call explained to me that although the UTMB opportunity was likely the best of his career, family matters decided the matter. I wished him well and told him that he always could count on us as friends and that if he changed his mind to please let me know.

**Dr. Pei-Yong Shi** (Novartis Institute of Tropical Diseases, Singapore) will join us in the fall as the I. H. Kempner Professor in Human Genetics. Importantly he was recently awarded a \$1,000,000 Texas STARs Award. Congratulations to Pei-Yong. This award will supplement his startup package for the purchase of capital equipment and will enhance the renovation efforts in MRB 5.

**Dr. Eric Wagner** (UT Houston) will join us on 1 August – will be temporarily stationed in BSB 5 next to Tom Smith. Eric's laboratory will move to MRB 7.

**Dr. Andrew Routh** (Scripps) will join us 1 November – will be temporarily housed within my laboratory in MRB 5 and will transition to MRB 6 as that floor is renovated in 2016.

Once again and for the last time on behalf of the department I thank Jim and Junji (co-chairs of the search committee) and all members of the committee for accomplishing the mission! Thanks also to all of you who helped with this successful recruitment effort.

We will be taking the 2015-16 academic year off and will restart a search in the summer of 2016.

### Newsorthy:

Congratulations to our recent BMB graduates: **Dr. Pawel Bujalowski** (mentor: Dr. Oberhauser) received his Ph.D. at the GSBS 2015 Commencement Ceremony. **Dr. Kurtis Anderson** (mentor: Dr. Gorenstein) received his Ph.D. in December of 2014. **Emilio Reyes Aldrete**, M.S. (mentor: Dr. Morais) received his M.S. in December of 2014.

Congratulations to BMB student Justin Drake (Pettitt's laboratory) for his appointment to the Texas Higher Education Coordinating Board.

**Ria Sur**, a high school student who worked with Alex Kurosky last summer had her presentation entitled "Muscle Proteome Changes associated with Prolonged Space Travel using Statistical Analysis" awarded the Third Prize at this spring's Texas State Science Fair. Congratulations to the BRF team that worked with Ria.

Congratulations to **Mark Emmett** – A Multi-Institutional NASA NSCORE grant was awarded for \$2,157,442.00 over 5 yrs with a UTMB subcontract (Robert L. Ullrich P.I. and **Mark R. Emmett** Co-I).

Congratulations again to **Dr. Jim Lee**, who received the Distinguished Faculty Service Award at the GSBS 2015 Commencement Ceremony.

Congratulations to **Ela Jaworski** and high school student **Yareli Perez-Carrasco** in the Kuyumcu-Martinez lab received the "Team Science Award" for the best Mentor/Student pair in the Ball High School Bench Tutorials Program.

Manuscripts accepted are listed below – congratulations to all authors

I will be in Singapore and Australia from 6 to 22 July – but always accessible by email and Margie also knows how to catch me by mobile phone.

Best wishes

Mariano

## Graduate Program News

### RECENT BMB GRADUATES

Dr. Pawel Bujalowski (mentor: Dr. Oberhauser) received his Ph.D. at the GSBS 2015 Commencement Ceremony.

Dr. Kurtis Anderson (mentor: Dr. Gorenstein) received his Ph.D. in December of 2014.

Emilio Reyes-Aldrete, M.S. (mentor: Dr. Morais) received his M.S. in December of 2014.

AND

Dr. Jim Lee, who received the Distinguished Faculty Service Award at the GSBS 2015 Commencement Ceremony.

A BIG THANK YOU to everyone that helped with admissions this year, especially to our Admissions Committee (Drs. Pierce (chair), Pazdrak, Hazra, Konkol, Choudhary), who worked very hard evaluating applications, and JoAlice who coordinated everything from application distribution to committee members, interview arrangements, collection of interview forms, scheduling of recruit visits, to completion of application decision forms for each applicant. The willingness of our enthusiastic graduate students to meet with visiting recruits and participate in recruitment events is greatly appreciated, as are the time and efforts put forth by faculty members to interview applicants and provide valuable feedback to the admissions committee.

-Tracy Toliver

Arijit Dutta was awarded a BMB student travel award, supported by the Wiktor W. Nowinski endowment fund.

Arijit's abstract 'X-rays Enhance XRCC1-complex Mediated Alternative End Joining of Blocked DNA Double Strand Breaks in Cancer Cells' has been selected as a Platform presentation in the EMGS 46th Annual Meeting in New Orleans, Louisiana.

Jim Hsu was awarded a BMB student Travel Award, supported by the Wiktor W. Nowinski endowment fund

Ismail Abass, medical student in Dr. Kuyumcu-Martinez's lab received two poster awards (second best place for overall poster award) and best poster award for NLHBI program.

Talha Ijaz, an MD/PhD combined degree student received a National Research Service Award- F30 fellowship from the NIH to study the role of fibroblast-NFκB signaling in the development of aortic dissections. Her research mentors are Dr. Allan R. Brasier and Dr. Ronald G. Tilton.

The BCSO has been hosting a Methods and Techniques Summer Series for BCSO members and interested parties. We would like to recognize the faculty members that have graciously participated and those that have committed to future sessions.

Mass Spectrometry/-Omics	Dr. Cheryl Litchi	6/11/15
Small Molecule Synthesis	Dr. Richard Hodge	6/18/15
DNA/RNA Sequencing	Dr. Thomas Wood	6/25/15
CRISPR/Cas	Dr. Shelton Bradrick	7/9/15
Genetic Animal Models	Dr. Maki Wakamiya	7/16/15
Microscopy Techniques	Dr. Gracie Vargas	7/23/15
Histopathology	Kenneth Escobar	7/30/15

All topics presented thus far have been informative and of great benefit to the students. We would also like to thank the SCSB, BMB, and MBET for their financial and administrative support of this series.

Thank you,  
Michaela Huynh and Timi Folorunso, BCSO Co-Chairs

## Grants

John Wiktorowicz, co-PI with Dr. Massoud Motamedi, received notification of our 3rd year's funding from the USAF for the contract entitled: Confirmation of candidate biomarkers of laser-induced retinal injury. DoD contracts require non-competitive renewals every year.

Dr. Mark Emmett was selected by the VUV Analytics technical management team for our Fall 2015 Instrument Grant. VUV Analytics will provide, for a period of 5 months beginning in the fall semester, the use of our VGA-100 Vacuum Ultraviolet GC detector for the purposes of applying VUV detection to the analysis of complex biological mixtures with emphasis on lipid analysis in hepatocellular carcinoma, neurosteroids in Alzheimer's and if time permits, developing methodology for monitoring the efficacy of a novel oncolytic virus treatment for glioma.

## Publications

Baker MS, Coarfa C, Hernandez-Vargas H, Castelino JM, Routledge MN, Gong YY, Herceg Z, Lee YS, Lee K, Moore SE, Fulford AJ, Prentice AM, Waterland RA (2015) Independent genomewide screens identify the tumor suppressor VTRNA2-1 as a human epiallele responsive to periconceptual environment. *Genome Biol* **16**: 118

Deng, J, Ptashkin, RN, Chen Y, Cheng Z, Liu G, Phan, Deng X, Zhou J, Lee I, Lee YS\*, Bao X\* (2015) Respiratory syncytial virus utilizes a tRNA fragment to suppress antiviral responses through a novel targeting mechanism. *Mol Ther*, accepted (\*co-corresponding authors)

Lee YS (2015) A Novel Type of Non-coding RNA, nc886, Implicated in Tumor Sensing and Suppression. *Genomics & Informatics* (in press)

Li J, Gregory SG, Garcia-Blanco MA, Armstrong AJ. Using circulating tumor cells to inform on prostate cancer biology and clinical utility (2015) *Crit Rev Clin Lab Sci*. 16:1-20. [Epub ahead of print] PMID: 26079252

Gayathri Manokaran, Esteban Finol, Chunling Wang, Jayantha Gunaratne, Justin Bahl, Eugenia Z Ong, Hwee Cheng Tan, October M Sessions, Alex M Ward, Duane JGubler, Eva Harris, Mariano A Garcia-Blanco, and Eng Eong Ooi. Dengue subgenomic RNA binds TRIM25 to inhibit interferon expression for epidemiological fitness (2015) *Science*, in press 2 July 2015.

Mitra A, Skrzypczak M, Ginalski K, Rowicka M. Strategies for achieving high sequencing accuracy for low diversity samples and avoiding sample bleeding using illumina platform.

PLoS One. 2015 Apr 10;10(4):e0120520. doi: 10.1371/journal.pone.0120520. eCollection 2015.

Schein CH, Ye M, Paul AV, Oberste MS, Chapman N, van der Heden van Noort GJ, Filippov DV, Choi KH. Sequence specificity for uridylylation of the viral peptide linked to the genome (VPg) of enteroviruses.

Virology. 2015 Jun 11;484:80-85.

Silver MJ, Kessler NJ, Hennig BJ, Dominguez-Salas P, Laritsky E, Baker MS, Coarfa C, Hernandez-Vargas H, Castelino JM, Routledge MN, Dominguez-Salas P, Lee YS, Lee K, Moore SE, Fulford AJ, Prentice AM, Waterland RA (2015) Independent genomewide screens identify the tumor suppressor VTRNA2-1 as a human epiallele responsive to periconceptual environment. *Genome Biol* **16**: 118

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## July Research Seminars

Jul 10	Fri	12:00pm - 1:00pm <b>PHTOX Student Seminar</b> Shariq Ali <i>"Paclitaxel Nanoparticles for Breast Cancer Therapy During Pregnancy"</i>
Jul 13	Mon	12:00pm - 1:00pm <b>Mitchell Center Seminar</b> Tara Spire-Jones <i>"Staying connected: the role of synapse degeneration in Alzheimer's disease"</i>
Jul 20	Mon	12:00pm - 1:00pm <b>Mitchell Center Seminar</b> TBA <i>"TBA"</i>
Jul 24	Fri	12:00pm - 1:00pm <b>PHTOX Student Seminar</b> Yaohua Hu <i>"Epac1 and its Novel Metabolic Functions in Adipose Tissue"</i>
Jul 25	Sat	All Day <b>ACA Annual Meeting</b>
Jul 26	Sun	All Day <b>ACA Annual Meeting</b>
Jul 27	Mon	All Day <b>ACA Annual Meeting</b>
Jul 28	Tue	All Day <b>ACA Annual Meeting</b>
Jul 29	Wed	All Day <b>ACA Annual Meeting</b>
Jul 30	Thu	12:00pm - 1:00pm <b>PHTOX Student Seminar</b> Omneya Nassar <i>"Modeling Ligand Binding to Glutamate Dehydrogenase"</i>