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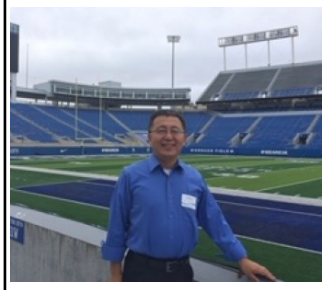
NEWSLETTER ITEMS

Want to include something in the next newsletter? Send your stuff to Morgan Rothermel at Morgan.Rothermel@uky.edu



New Grants (New grants are shared once the department receives PADR 1 stating the account has been created):

Xiaoqi Liu (PI in 3 grants below):



NIH R01 CA264652, "Plk1 as a prognostic biomarker for prostate cancer" Total funding: $2,735,592 for 5 years. The studies of this proposal will dissect how Plk1-associated kinase activity regulates DNA damage response. Specifically, the proposed study aims to test the central hypothesis that Plk1 phosphorylation of Mre11 and MDC1, two critical DNA damage response factors, results in premature termination of DNA damage checkpoint, and reduced DNA repair. Co-Investigators include Drs. Zhiguo Li, Derek Allison, Chi Wang and Peng Wang.

NIH R01 CA256893, "Enhancing the efficacy of androgen signaling inhibitors in prostate cancer" Total funding: $2,467,501 for 5 years. The studies of this proposal will examine how the activation of WNT signaling contributes to enzalutamide resistance in prostate cancer. Specifically, the proposed study aims to test whether b-catenin-dependent canonical WNT pathway contributes to growth of enzalutamide-resistant prostate cancer and whether activation of b-catenin-independent non-canonical WNT signaling results in metastasis of enzalutamide-resistant prostate cancer. Co-Investigators include Drs. Derek Allison, Chi Wang and Peng Wang.

NIH R01 CA264652-6, "Improving chemotherapy of castration-resistant prostate cancer" Total funding: $1,741,725 for 5 years. The studies of this proposal will test how the epigenetic reader Brd4 regulates chemotherapy in prostate cancer. Specifically, the study aims to test the central hypothesis that Plk1-associated phosphorylation of Brd4 results in its protein degradation, thus docetaxel-associated Plk1 elevation is one approach to overcome resistance to Brd4 inhibitors. Investigators include Drs. Derek Allison, Chi Wang and Peng Wang.

Teresa Fan and Richard Higashi:





Co-Is, Exelixis Clinical Trial, PI: J. Kim, "MCC-21-GI-117: Phase II Clinical Trial Evaluating Cabozantinib and Pembrolizumab in Second-Line Therapy for Metastatic Pancreatic Adenocarcinoma" CESB Budget: $33,423 for CESB Service Charges over 2 years. This clinical trial is for translational studies involving organoids and exosomal lipids for pancreatic cancer patients.

Recently Accepted or Published Manuscripts:

Xiaoqi Liu:

1. Jones K*, Zhang Y, Kong Y, Farah E, Wang R, Li C, Wang X, Zhang Z, Wang J, Mao F, Liu X, Liu J. Epigenetics in prostate cancer treatment. J Transl Genet Genom 2021;5:341-56. https://dx.doi.org/10.20517/jtgg.2021.19

*Currently a 2nd year PhD student in Dr. Liu's Lab.

Christine Brainson:

1. Chen F, Liu J, Flight RM, Naughton KJ, Lukyanchuk A, Edgin AR, Song X, Zhang H, Wong KK, Moseley HNB, Wang C, **Brainson CF***. *Cellular origins of EGFR-drive lung cancer cells determine sensitivity to therapy.* in press at Advanced Science, August 2021.

Recently Accepted or Published Manuscripts cont.:

Teresa Fan, Andrew Lane, Richard Higashi:

1. Yang, J-S., Fan, T. W-M.*, Brandon, J.A., Lane, A.N & Higashi, R.M.* (2021) Rapid analysis of S-Adenosylmethionine (SAM) and S-Adenosylhomocysteine(SAH) isotopologues in stable isotope-resolved metabolomics (SIRM) using direct nanoelectrospray ultra-high-resolution mass spectrometry. Analytica Chimica Acta 1181, 338873
2. T. W.-M. Fan*, R. M. Higashi, S. Daneshmandi M. Purdom, T. J. Bocklage, T. A. Pittman, C. Wang, D. He, A. N. Lane* (2021) Innate immune activation by checkpoint inhibition in human patient-derived lung cancer tissues. eLife 10:e69578
3. K. Fulghum, T. Audam, P. K. Lorkiewicz, Y. Zheng, M. Merchant, T. D. Cummins, W. L. Dean, T.A. Cassel, T. W-M. Fan,* S. P. Jones, and B. G. Hill (2021) In vivo deep network tracing reveals phosphofructokinase-mediated coordination of biosynthetic pathway activity in the myocardium. J. Molecular and Cellular Cardiology 162, 32-42 https://doi.org/10.1016/j.yjmcc.2021.08.013

Faculty Activity:

Jin-Ming Yang:

Oncological Sciences Fellowship (F09B) Study Section. July 28 and 29.

Nathan Vanderford:

1. NIH Fellowships: Risks, Prevention and Health Behavior Special Emphasis Panel/Scientific Review Group. July.
2. CSR Advisory Council for input on NRSA Fellowship review criteria and process. Ad hoc basis September-February.
3. University of Kentucky Senate. Term is through August 2022.

Luksana Chaiswing:

Honored guest and featured speaker at University of Iowa's Larry W. and Terry D. Oberley Symposium, planned by the faculty, staff and students of the Free Radical and Radiation Biology Program and the Department of Radiation Oncology. June 15 and 16.

Richard Higashi:

NIH U24 Common Funds Study Section. July 2021.

Teresa Fan:

1. Mapping human tumor/immune metabolism using multiplex Stable Isotope-Resolved Metabolomics (mSIRM). CASMS. August 2021.
2. Innate immune activation by checkpoint inhibition in human patient-derived lung cancer tissues. Immunotherapy Translational Working Group, UKY. September 10.



Congratulations to our students
that recently passed their qualifying exams!

Thank you to the committee members!

L to R: Caitlin Miller (Dr. Luksana Chaiswing), Kassie Naughton (Drs. Christine Brainson and Haining Zhu), Hannah Daniels (Dr. Eva Goellner), Kristin Miller (Dr. Eva Goellner), Aziza Alshahrani (Dr. Qiou Wei), Na Ding (Dr. Qiou Wei), Xinyi Wang (Dr. Xiaoqi Liu) Kate Jones (Dr. Xiaoqi Liu), and Courtney Kelson (Dr. Kate Zaytseva).

Extending a Warm Welcome to our New Students!

MS Forensic Toxicology & Analytical Genetics:


Mohammad Jaloudi


Ravyn Borrum


Tiffany Burton


Corinne Hill


Kathleen Reed


Robyn Borrum


Samantha Stanley


Amanda Haw


Cassandra Whitlatch


Brittany Ferguson


Kendyll Freeman


Trinity Rudd


Trudy Colaco


Holly Bendel

MS Toxicology:

Maria Edwin

Welcome! We are so glad to have you as part of our department!



Dave-Preston Esoe, second year Forensic Toxicology & Analytical Genetics student, was selected to receive a 2020 NSF Kentucky-West Virginia Louis Stoke Alliance for Minority Participation Cohort I Bridge to the Doctorate Fellowship! Congratulations Dave!



Aria Byrd, PhD Student, was selected for a 1 Year Dissertation Award through the SREB Doctoral Scholars Program. Congratulations, Aria, on your award!

We hope everyone enjoyed their summer and has a strong semester ahead!

Extending a Warm Welcome to our New Students!

PhD Toxicology:


Tempany Arbogast




Breanna Knicely


Vivian Ayarick


Kevin Fulp


Jerika Durham


Oluwafunminiyi Obaleye


Charles Bailey

Welcome future Doctorates!

PhD Second Year Lab Placements

Xinyi Wang:
Dr. Xiaoqi Liu

Alyssa Clark:
Dr. Xiaoqi Liu

Courtney Kelson:
Dr. Kate Zaytseva

Sarah Alqithami:
Dr. David Orren

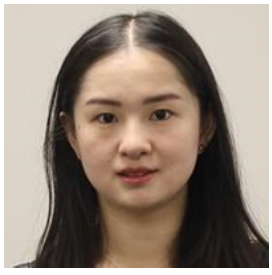
Kate Jones:
Dr. Xiaoqi Liu

Mariah Geisen:
Dr. Kate Zaytseva

Chrispus Ngule:
Dr. JM Yang



Congratulations to our PhD students who recently graduated!



Dr. Huan Jin. Mentored by Dr. Hunter Moseley. Defended July 2021.

Next steps: Postdoc at University of Kentucky in Dr. Moseley's lab



Dr. Martina Lin. Mentored by Dr. Chengfeng Yang. Defended July 2021.

Next steps: Postdoc at Columbia University Medical Center



Dr. Jacob Machin. Mentored by Dr. Thomas Tobin. Defended August 2021.

Congratulations!

Annual DTCB Retreat

The 2021 Department of Toxicology and Cancer Biology Annual Retreat took place August 18, 2021 at The Club at UK's Spindletop Hall in Lexington, KY. It was a day filled with socializing, research, awards and gaining information. Thank you to the Retreat Committee Members for organizing it! We look forward to next year's!

Award Winners:

Post-Doc/Staff Research Fellowship ($30,000): Zhuangzhuang Zhang

Thesis Fellowship ($30,000): Chaohao Li

Excellent Research Fellowship ($30,000): Xiaojing Cui, Yanning Hao, Kristin Miller, Alston Zhang

Research Fellowship ($5,000): Aziza Alshahrani, Hannah Daniels, Na Ding, Caitlin Miller, Kassie Naughton

Retreat Poster Award ($50): Kate Jones, Tanner DuCote, Jinghui Liu

Oral Presenters: Jenni Ho, Cuiping Zhang, Kristin Miller, Yanning Hao, Courtney Kelson, Caitlin Miller

