



PennState  
College of Medicine

# POSTDOCTORAL SCHOLARS & FELLOWS CONNECT

Newsletter Issue 14, December 2020



Photo courtesy: Rinki Kumar

## **THIS ISSUE'S FOCUS:**

The Virtual World: Covid19 continues  
As the world continues to tackle the pandemic, we all have come to accept the new normal and understanding that it is going to be here for a while. Life was brought to a halt, but now it beginning to slowly pick up pace with the extra precautions in place. All academic, professional and even personal events have become virtual.

We bring to you the news and events in this newsletter for and by postdoctoral scholars and fellows at the Penn State College of Medicine.

The highlights of postdoc achievements and efforts to keep going showcase the resilience of our fellows to keep moving ahead.

## **In this Issue**

- Message from the Director's Desk
- NPAW 2020 highlights
- Postdoc Achievements
- Events to look out for
- Career Development Events



# From the Director's Desk



**Dr Gail Thomas**  
**Director,**  
**Office of Postdoctoral**  
**Affairs**

Hello Postdocs!

As we approach the end of this unexpectedly challenging year, I would like to take a moment to thank you for your patience, adaptability, and resilience in these uncertain times. Your ongoing efforts to continue to be productive and contribute to the research enterprise at the College of Medicine are truly appreciated. To better understand the impact that COVID-19 has had on your postdoc experience, I will be sending out a survey to ask how the pandemic has affected your research activities and your career development. I encourage you to participate in the survey, as your feedback will help me to identify areas where the OPA may be able to provide additional resources. I look forward to when we can meet in person again. Until then, stay safe, stay strong, and carry on!

**-Gail Thomas**





# National Postdoc Appreciation Week 2020

## September 21-25, 2020

The pandemic led to unforeseen steps, measures and efforts within very short time frame. It called for unprecedented measures and collaborations to extend help and comfort to everyone around. While we continue to deal with the new normal, we also came up with new and innovative ideas to continue many of the activities.

National Postdoc Appreciation week was a much different event this year with new ideas and ways to extend appreciation to all Postdocs on our campus.

While taking all measures to ensure the safety of everyone, we distributed souvenir mugs to each one, and personalized appreciation e- cards to each postdoc fellow. We hope you enjoyed the gift and the cards. Postdocs and their achievements were highlighted and showcased virtually.

Virtual events were also organized by the National Postdoc Association which were accessible to all who signed up.

We would like to thank and recognize the efforts of the entire postdoctoral society team behind making it a success: **Mee Ngu, Becky Moyers, Gail Thomas, Sophia Allen, Dani Kim, Khai Chung, Alex Lin and Rinki Kumar.**



Together we can make a difference



Your opinion matters



Every small step counts



National Postdoc Appreciation Week 2020



# Glimpse of NPAW 2020 Souvenir Mug distribution



**A glimpse of the postdoc community on our campus!  
WE HOPE YOU ENJOYED THE SOUVENIR**





# Drs. Judith S. Bond & S. Gaylen Bradley

## Travel Awards are open



This travel award for postdocs at Penn State Hershey has been developed in an effort to facilitate and promote the professional development of postdocs and contribute to travel expenses for active conference participation.

**Each award will be in the amount of \$300 and will be offered 4 times per calendar year.** These travel awards are made possible by a generous donation from **Drs. Judith S. Bond and S. Gaylen Bradley** to the Postdoctoral Society at Penn State College of Medicine.

Please find the travel award criteria and application materials on the Penn State College of Medicine Office of Postdoctoral Affairs website at: <https://sites.psu.edu/postdocs/travel-awards/>

The Penn State College of Medicine Postdoc Society is excited to announce the **2020/21 Winter Cycle** of the **Bond & Bradley Postdoc Travel Award** is **NOW OPEN!!!** This travel award has been developed in an effort to facilitate and promote the professional development of postdocs and contribute to travel expenses for active conference participation. **Each award will be in the amount of \$300 and will be offered four times per calendar year.**

**APPLICATION DEADLINE: January 15<sup>th</sup> | Eligible Conference Dates:**  
**February 1<sup>st</sup>, 2021 - April 30<sup>th</sup>, 2021**

Please find the travel award criteria and application materials on the Penn State College of Medicine Office of Postdoctoral Affairs website at <https://sites.psu.edu/postdocs/travel-awards/>

Any questions? Please email Pavan Kumar Dhanyam Raju ([pdhanyamraju@pennstatehealth.psu.edu](mailto:pdhanyamraju@pennstatehealth.psu.edu)).



# Achievement Spotlight



**Dr. Suchitra Mohanty** is a postdoctoral fellow in the laboratory of **Dr Ed Harhaj** in **Department of Microbiology and Immunology**.

Her research interests are to explore the oncogenic mechanisms of HTLV-1 trans-activator protein, Tax, and ubiquitin pathway components in Tax-mediated NF- $\kappa$ B activation for immortalization and transformation of T cells. She has just published 2 first author papers. We congratulate you on your wonderful achievement and wish you many more.

**Mohanty S**, Han T, Choi YB, Lavorgna A, Zhang J, Harhaj EW (2020). The E3/E4 ubiquitin conjugation factor UBE4B interacts with and ubiquitinates the HTLV-1 Tax oncoprotein to promote NF- $\kappa$ B activation. PLoS Pathog 16(12): e1008504. <https://doi.org/10.1371/journal.ppat.1008504>

**Mohanty S**, Harhaj EW. Mechanisms of Oncogenesis by HTLV-1 Tax. Pathogens. 2020;9(7). Epub 2020/07/11. PMID:32645846; PubMed Central PMCID:PMC7399876 <https://doi.org/10.3390/pathogens9070543>



**Dr. Upendar Rao Golla**, is a postdoctoral scholar working under **Dr. David Claxton**, Professor at Department of Medicine, Penn State Cancer Institute.

He was an invited speaker at the “International Webinar on Biomedical Product Development: Challenges and Future Opportunities” hosted by the Government Degree College in Pithapuram, AP, India on Sept. 4. He delivered a lecture entitled “Drug Development, Repurposing and Current Advancements in the Treatment of COVID-19”. During the lecture, I have discussed various aspects of the conventional drug development process with a special emphasis on drug repurposing to combat the current COVID-19 pandemic.

Drug repurposing involves identifying new uses for existing drugs and is an approach being used during the pandemic situations.

A replay of lecture is available at <https://www.youtube.com/watch?v=HUDEuaP2xH8>

He co-authored (second author) publication entitled “Engineered probiotic and prebiotic nutraceutical supplementations in combating non-communicable disorders: A review” in **Current Pharmaceutical Biotechnology** journal (Curr Pharm Biotechnol. 2020 Oct 13; E-pub Ahead of Print. DOI: 10.2174/1389201021666201013153142) [PubMed ID: [33050862](https://pubmed.ncbi.nlm.nih.gov/33050862/)]. In this collaborative review paper, we have discussed the role of nutraceutical supplements (pro-/prebiotics) in combating several non-communicable diseases along with special emphasis on genome-editing techniques and viral/non-viral delivery systems.

We congratulate you on your wonderful achievement!



# Achievement Spotlight



**Dr. Pavan Kumar**, a postdoctoral scholar in the laboratory of Prof. Sinisa Dovat in the Department of Pediatrics. He has achieved a prolific publication record for this year 2020. We congratulate you on your wonderful achievement!

The objective of Dr. Pavan's work is to get an insight into and understand the molecular mechanisms which modulate and differentiate cancer cells from non-cancerous cells. Ikaros (IKZF1) is one such gene that is of paramount significance due to its involvement in the hematopoietic system. Its loss has been shown to cause high-risk childhood leukemia and has a poor prognosis. Thus, treatment of high-risk childhood leukemia is a herculean challenge. Therefore development of drugs and treatment strategies is one of the long-term interests of Dr. Pavan. Furthermore he is interested in understanding the molecular mechanisms of Casein kinase-2 (CK2) and its role in leukemogenesis.

## **The papers she has recently published in 2020**

**1.** Gowda C, Song C, Ding Y, Iyer S, **Dhanyamraju PK**, McGrath M, Bamme Y, Soliman M, Kane S, Payne JL, Dovat S. Cellular signaling and epigenetic regulation of gene expression in leukemia. *Adv Biol Regul.* 2020 Jan; 75:100665. doi: 10.1016/j.jbior.2019.100665. Epub 2019 Oct 5. PMID: 31623972; PMCID: PMC7239353.

**2.** **Dhanyamraju PK**, Iyer S, Smink G, Bamme Y, Bhadauria P, Payne JL, Dovat E, Klink M, Ding Y. Transcriptional Regulation of Genes by Ikaros Tumor Suppressor in Acute Lymphoblastic Leukemia. *Int J Mol Sci.* 2020 Feb 18;21(4):1377. doi: 10.3390/ijms21041377. PMID: 32085659; PMCID: PMC7073093.

**3.** Payne JL, Song C, Ding Y, **Dhanyamraju PK**, Bamme Y, Schramm JW, Desai D, Sharma A, Gowda C, Dovat S. Regulation of Small GTPase Rab20 by Ikaros in B-Cell Acute Lymphoblastic Leukemia. *Int J Mol Sci.* 2020 Mar 3;21(5):1718. doi: 10.3390/ijms21051718. PMID: 32138279; PMCID: PMC7084408.

**4.** Song C, Ge Z, Ding Y, Tan BH, Desai D, Gowda K, Amin S, Gowda R, Robertson GP, Yue F, Huang S, Spiegelman V, Payne JL, Reeves ME, Gurel Z, Iyer S, **Dhanyamraju PK**, Xiang M, Kawasawa YI, Cury NM, Yunes JA, McGrath M, Schramm J, Su R, Yang Y, Zhao Z, Lyu X, Muschen M, Payne KJ, Gowda C, Dovat S. IKAROS and CK2 regulate expression of BCL-XL and chemosensitivity in high-risk B-cell acute lymphoblastic leukemia. *Blood.* 2020 Sep 24;136(13):1520-1534. doi: 10.1182/blood.2019002655. PMID: 32396934; PMCID: PMC7515690.

**5.** **Dhanyamraju PK**, Patel TN, Dovat S. Medulloblastoma: "Onset of the molecular era". *Mol Biol Rep.* 2020 Nov 6. doi: 10.1007/s11033-020-05971-w. Epub ahead of print. PMID: 33159234.

**6.** Priyanjali Bhattacharya, **Pavan Kumar Dhanyamraju**, Ankita Sarmah, Mohana Priya Jay, Chris Maria Jose, Sayali Dbritto, Showmeya Mallavarapu, Trupti N. Patel. Mutational profiling of POT1 gene and its interaction with TPP1 in cancer- A computational approach, *Informatics in Medicine Unlocked*, Volume 20, 2020, 100389, ISSN 2352-9148, <https://doi.org/10.1016/j.imu.2020.100389>.

**7.** **Dhanyamraju PK**, Sharma A, Dovat S, Amin S, Desai D. Nanotherapeutics: A Mini-Review. *Mod Appro Drug Des.* 2(5). MADD.000547.2020. DOI: 10.31031/MADD.2020.02.000548.

**8.** **Pavan Kumar Dhanyamraju** <sup>1</sup>\*, Yevgeniya Bammel, Dhimant Desai<sup>2</sup>, and Sinisa Dovat<sup>1</sup>. The Role of "Hedgehog Signaling" in AML. April 06, 2020, Volume 4; Issue 3. *NACS (Novel Approaches in Cancer Study)*. DOI: 10.31031/NACS.2020.04.000588



# Career Development Events



## **Graduate and Postdoctoral Career Day**

**Saturday, October 16, 2021** (*\*date may be adjusted due to pandemic*)

The co-chairs are Rebecca Fleeman and Joe Cirilo, both are BMS PhD candidates. They are in the process of creating their planning committee. As was done in 2019, we would like for there to be representation from postdocs (1-2 volunteers). The planning committee entails attending monthly planning meetings, developing a list of potential speakers/panelists, developing the event format and schedule, assisting the day of the event, and serving as a moderator for one or more panels. The event format next year may be really different from previous years, possibly a hybrid of in-person and virtual sessions or solely virtual. That decision will be made early in the new year, likely in February. Overall, the planning committee entails a commitment of approx. 2-3 hours per month (including the monthly meeting). Interested postdocs should email Jessica Kirkwood at [jlk296@psu.edu](mailto:jlk296@psu.edu).

## **Career Services Programming - SPRING 2021**

*(\*dates & times TBD, schedule is subject to change)*

- **Alumni Spotlight - Public Health**
- **Networking and Informational Interviewing**
- **Industry Info Session/Spotlight**
- **Advanced Writing Skills Session (Grant Writing, Manuscript Writing)**
- **Spring Career Days - Virtual (career fair run by University Park): February 15-16, 11 a.m. - 4 p.m.**
- **Internship & Job Search**
- **GCC Virtual Career Expo (VCE): March 3, 2021**
- **Transitioning to Industry Alumni Panel - Public Health Edition**
- **Create Your Career: Business and Consulting**
- **Transitioning to Industry Alumni Panel - Biomedical/Neuro/Life Sciences**
- **NIH Career Symposium (likely virtual)**





# Fellowships Opportunities



The Oak Ridge Institute for Science & Education (ORISE) has launched the **FDA Postdoctoral Fellowship in Cellular and Molecular Biology**. The fellow will receive a 1-year, full-time appointment at the FDA's Center for Biologics Evaluation and Research (CBER) in Silver Spring, Maryland.

- **Funding Organization's Deadline:** Friday, January 29, 2021 @ 3:00 PM EST
- **Award Cycle:** 1 year - may be renewed upon recommendation of FDA contingent on the availability of funds
- **Anticipated Appointment Start Date:** October 2021
- **Discipline/Subject Area:** Division of Cellular and Gene Therapies, in the Office of Tissues and Advanced Therapies (OTAT), at the Center for Biologics Evaluation and Research (CBER), Food and Drug Administration (FDA) located in Silver Spring, Maryland
- **Opportunity Posting:** [Zintellect - Climb Higher](#)

## Description:

A research opportunity is currently available with the FDA at the at the Center for Biologics Evaluation and Research (CBER) in Silver Spring, Maryland. This ongoing research focuses on the understanding of mechanism of action of CAR-T cells targeting human cancer antigens. The study also focus on the influence of cellular factors on CART cell activation, transduction of peripheral blood derived or cell line T cells by pseudo lentivector vectors for production of CAR-T cells and their expansion using advanced manufacturing technologies. Under the guidance of a mentor, the participant will learn how to best produce, purify and evaluate lentiviral gene therapy vectors and test them in vitro for their safety and activity. In addition, the participant will also learn and test these CAR-T cells in animal models of human cancer to determine their safety and effectiveness. The appointment is full-time at FDA in the Silver Spring, Maryland, area. The participant will receive a monthly stipend commensurate with educational level and experience.

Applications will be reviewed on a rolling basis.

## Qualifications:

The qualified candidate should have received a doctoral degree in one of the relevant fields, or be currently pursuing the degree and will reach completion by the appointment start date.

Degree must have been received within 5 years of the appointment start date. Preferred skills:

- Experience in the purification and characterization of proteins in mammalian systems
- Basic recombinant DNA techniques
- Excellent tissue culture techniques
- Experience with molecular, virological and immunological assays including flow-cytometry, measuring T-cell mediated immune responses, ELISpot and ELISA
- Willingness to learn new technologies and methods including animal models of human cancers

## Eligibility:

- Citizenship: U.S. Citizen or Lawful Permanent Resident (LPR)
- Degree: Doctoral Degree received within the last 60 months or currently pursuing.
- Discipline(s):
  - o Environmental and Marine Sciences (visit website for complete listing)
  - o Life Health and Medical Sciences (visit website for complete listing)

Application Process: Zintellect is ORISE's on-line application management system. If you have plans to apply, visit the web page to create a Zintellect profile:

<https://orise.orau.gov/fda/current-research-opportunities.html>

# Moving on.....



***Dr Alex Lin worked as a postdoctoral fellow in the Department of Pathology. Investigating DNA polymerase deficiency using zebrafish; 3-dimensional histo-tomography by micro-CT. He served as the Society Representative for Fundraising and then went on to serve as Co-President this year. He is moving on a new place and we would like to thank you for your efforts. It has been a pleasure working with you and having you on board the postdoc society executive council. We wish you all the very best for your future endeavors.***

***-Rinki Kumar, PhD  
President, Postdoc Society  
Editor, "Connect"***





# Moving on.....



*I would like to take this opportunity to thank and appreciate Becky Moyers, who has been working with the Office of the Postdoctoral Affairs as the Administrative Support Coordinator. I have worked with Becky for the past two years, and it has been an immense pleasure. She is definitely one of the most amazing people I have had the opportunity to work with. She has been instrumental in running our office. While she continues to be at PSU, she will not be working with our office. We wish you all the best for your future endeavors. We will definitely miss you!*

**-Rinki Kumar, PhD**  
**President, Postdoc Society**  
**Editor, "Connect"**

## **Rebecca Moyer**

Administrative Support Coordinator



## Message from the Editor's Desk



**Rinki Kumar, PhD**

President &

Editor Of Connect Newsletter

**“Connect”** is the quarterly newsletter of the Post-Doctoral Society at the College of Medicine, PSU, Hershey. It brings to the community a glimpse into the activities, events and achievements of the post-doctoral fellows. From warm welcomes to new fellows to “Connect” them with their colleagues, to notifications about opportunities for professional growth and enrichment in upcoming quarters.

**“Connect”** is a professional platform that aims to bring you the recognition you deserve and an opportunity to showcase your work. Let us know about your publications, grants, awards that you receive or personal milestones, and we will highlight it in our spotlight section. We are keen to hear from you about your work. Write to us for a chance of an interview and let fellow colleagues learn from your experiences.

We invite everyone to write about what matters to you- arts, science, society, philosophy or life in general, or express yourself through photography or cartoons. We call for interesting science images from your research, to be featured on the cover page. So, keep connected and look out for the next issue.



**Do you have cool  
fluorescence, confocal or  
EM images to share?**

We are looking for cover images for our newsletter “CONNECT”.

An excellent way to share your research and highlight your findings!

We look forward to your contributions to this inventory of images.

Please send your images to

[rkumar1@pennstatehealth.psu.edu](mailto:rkumar1@pennstatehealth.psu.edu)



## RESEARCH ACHIEVEMENTS

We have introduced the “Research Achievements” section to highlight and enlist the recent achievements of the postdoctoral scholars from The Penn State College of Medicine. Please send us the details of your recent achievements, including:

- Publications (News and Views, Press Coverage)
- Patents
- Talks/poster presentation at conferences
- Grant Awards

This is an excellent platform to share your interesting research, highlight your achievements and provide opportunities for collaborations.



**Follow us on social media to stay connected with social and scientific events happening in and around campus.**



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 **Facebook group:**

Hershey Postdocs <https://www.facebook.com/groups/439767336548787/about/>

Contact **Mee Sing** at [mngu@pennstatehealth.psu.edu](mailto:mngu@pennstatehealth.psu.edu) or **Rinkil** at [kumar1@pennstatehealth.psu.edu](mailto:kumar1@pennstatehealth.psu.edu) if you have any news you want to share (e.g., publications, awards, grants, etc.)

If you're more comfortable with texting, click the links/scan QR codes below and we will include you in your favorite APP!

**WhatsApp** <https://chat.whatsapp.com/L9EKLraqP2j13PzIO5PGoA>

**Line** <https://line.me/R/ti/g/KC-B9yAuUe>



**We chat**

**Vacancies in the society council**  
**We currently have vacancies in the executive council. We encourage you to join us. Interested fellows may contact us.**

**We look forward to hearing from you and would like you to join us on the executive council!**



# Season of festivals



This last quarter has been full of several festivals in different cultures. Our postdoc society is so culturally diverse and hence we would like share and acknowledge the many festivals being celebrated throughout. Even with the pandemic, we all should keep the spirits high and celebrate in the safest way possible.



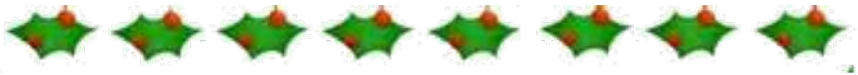
2020



**Halloween 2020**  
**Safe, family**  
**friendly events**







**We wish you Happy  
Holidays and  
A Happy New Year**



Photo courtesy: Rinki Kumar

**Stay safe and welcome the  
new year with high spirits!  
Cheers!**

