

SNIP

A newsletter of the Society for NeuroImmune Pharmacology

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Introduction

by Ilker K. Sariyer, D.V.M., Ph.D.

Hello to everyone from new Society's newsletter edited by Communication Committee. We would like to express our special thanks to Drs. Sulie L. Chang, Gurudutt Pendyala, Rafal Kaminski, Santosh Kumar, and Pankaj Seth who helped to put the newsletter together. We would like to also thank to the members of the Communication Committee for their edits and contributions in preparation of the newsletter. Society's newsletter is the official publication of SNIP which reports the activities of the Society including recent and upcoming meetings and news and announcements interest to the majority of the SNIP members. In this issue, we report the 2019 Portland meeting summary provided by Dr. Sulie L. Chang, ACITA award winners of 2019 meeting reported by Dr. Gurudutt Pendyala, a brief report on recent advances in CRISPR-Cas genetic editing reported by Dr. Rafal Kaminski, and announcement of our upcoming historical meeting in New Delhi, India. In addition, as indicated by messages from Dr. Santosh Kumar (president elect and Meetings Committee Chair) and Dr. Pankaj Seth (Local Organizing Committee chair), the updated meeting agenda for the 2020 SNIP meeting is also included in this issue of the newsletter. We would like to also express our special thanks to everyone working hard to make a memorable meeting by offering a great scientific retreat during April 1 - 4, 2020. Looking forward to see everyone in New Delhi, India.

2019 SNIP Portland meeting summary

by Sulie L. Chang, Ph.D.

We had a successful meeting at the 25th Annual Conference of the Society held in the Portland Marriott Downtown Waterfront, Portland, Oregon, April 10-13, 2019. The program brought together primarily basic, translational and clinical scientists to share their research and discuss the relevance of their findings.

Accomplishments of the 2019 25th Annual Conference

Conference Topics of Import

The 2019 SNIP conference brought together the investigators from diverse fields to discuss and advance the understanding of the multi-factorial impact of substances of abuse, systemic infection and neuronal pathology.

2019 SNIP Portland meeting summary (continue)

by Sulie L. Chang, Ph.D.

This year's conference was in line with the mission of the Society which is to foster interdisciplinary research bridging the fields of Immunology, Pharmacology, and Neuroscience, with special emphasis on drugs of abuse and infectious diseases, such as AIDS, interact and modulate the neuroimmune axis. This was evident in the poster sessions, the Early Career Investigator Symposium, Satellite Symposium, and themed symposia:

Creativity in Research

The Biology of Adenosine

Glia, Toxins & Drugs of Abuse

(in collaboration with the Neurotoxicity Society)

Blood-Brain Barrier Dysregulation Due to Drugs of

Abuse and Pathogens

Addiction, Genetics and Neuroimmune Signaling

Exosomes in Neuronal Infections and Drugs Abuse

SNIP Member Symposium: Neuropharmacology & Neuroimmunology

Systemic Mechanisms of Neuroimmune Communication & Glymphatics



Drs. Jean M. Bidlack (left) and Sulie L. Chang (right) at 2019 SNIP meeting, Portland, Oregon.

This focus included many aspects of neuroscience, pharmacology, and immunology, including diseases such as NeuroHIV/AIDS and other neurodegenerative processes, with molecular mechanisms, pathology, and behavioral outcomes. As in the titles there was a high representation of studies and talks on the relationship between substances of abuse and neuroimmune functioning.

Support of Early Career Investigators and Diversity

Our conference supplied supportive training and mentoring to young investigators in the field of neuroimmune pharmacology. SNIP is proud to support early stage investigators. To promote interest in the field of Neuroimmune Pharmacology and recognize the excellent work being done by early career investigators in the field, the Society provided Early Career Investigator Travel Awards (ECITA) to graduate students and post-doctorate trainees.

For the 2019 SNIP Scientific Conference, a total of 34 abstracts were submitted by trainees. From this pool, 5 pre-doctoral students and 8 post-doctorate fellows were given complete travel awards that included registration fee waiver. Also, 5 pre-doctoral students and 2 post doctoral fellows received a complete registration waiver. Finally, the top 3 from each category (graduate student and post-doctorate fellow) were selected for symposium presentation.

Another part of our support for trainees is the annual SNIP Meet-the-Mentors Lunch, which was held on Thursday April 11th. This was attended by 13 mentors and trainees, roughly 1:5 ratio. The lunch is designed to encourage interaction among pre-doctoral and post-doctoral trainees and scientists from academia, the NIH and industry. In order to give the trainees a variety of perspectives, the mentors this year included junior, mid-career, and senior SNIP investigators.

Particular emphasis this year was to include investigators from diverse backgrounds, who were well represented. As part of our commitment to inclusion and the support of diverse individuals in the scientific community and the field of NeuroImmune Pharmacology, the Diversity and Inclusion SNIP Committee (DISC) held a successful DISC Networking Session on Wednesday, April 10th.

2019 SNIP Portland meeting summary- continue

by Sulie L. Chang, Ph.D.

In addition, again for our commitment to trainees, a special NIH Session - Grant Writing Workshop was held for Early Career Investigators on Thursday, April 11th.

In addition to the trainee travel award competition, trainees presented a total of 58 posters to be evaluated for best poster awards. These posters included all posters from ECITA applicants, and any additional posters from others who were eligible ECI (pre-doc and post-doc within 5 years of PhD) but did not submit applications to ECITA. Each poster was judged by two judges and scores were tabulated and ranked from low-high scores.

Dissemination of Information

Importantly, we were able to disseminate the information presented at the 2019 SNIP Conference to both the scientific community and the general public. Publishing the meeting abstracts in a Special Edition of the Journal of NeuroImmune Pharmacology entitled "The 25th Scientific Conference of the Society on Neuroimmune Pharmacology: Program and Abstracts" (*Journal of Neuroimmune Pharmacology*, 2019, 14(2), 326-365. doi:10.1007/s11481-019-09847-0). The highlights of the meeting were disseminated on the SNIP website, in brochure mailings, and through personal contacts. Meeting participants have published the work presented at the meeting in a number of outstanding scientific journals.

In Memorial



Dr. Fernando Renaud was a charter member of SNIP. Dr. Renaud passed away in February 2020 at the age of 82 from Alzheimer's disease associated heart problems. He spent his career as a Professor at the Rio Piedras campus of the University of Puerto Rico where his work was in opioid/immunology research. His dedication to research and higher education was apparent to all who knew him and was exemplified by his unending passion for knowledge and artistic expression. His contribution to the Society and academia went far beyond his extensive research expertise – promoting culture in diverse disciplines and training graduate students. His life's work has greatly influenced the future of both the Society and the science of neuroimmune function. Dr. Renaud was an exemplary scientist and person, and he will be greatly missed.

2019 SNIP Meeting ECITA travel award winners

by Gurudutt Pendyala, Ph.D.



The Early Career Investigator Travel Award (ECITA) committee has been a significant pillar of SNIP and its main motto has been “to forge interdisciplinary research and accelerate the bi-directional exchange between early career basic and clinical scientists”. Avenues such as the SNIP annual meetings provide an ideal platform for them to access information, gain insight and perspective from their peers as well as identify helpful resources for advancing their careers. To help meet these goals, ECITA has a long-standing tradition to support these “rising stars” via offering travel awards that waive their registration and/or travel including disseminating their research as part of the young investigator forum.

GRADUATE STUDENTS				
Candidate	Mentor	Recommendation	Position	Talk
Omalla Allan Olwenyi-UNMC	Sid Byrareddy	Travel Award	Pre Doc	Y
Michael Ohene-Nyako-Rush	Celeste Napier	Travel Award	Pre Doc	Y
Farah Shahjin-UNMC	Sowmya Yelamanchili	Travel Award	Pre Doc	Y
Hang Liu-Temple	Wenzhe Ho	Travel Award	Pre Doc	Y
Jamie Marino-Drexel	Michael Nonnemacher	Travel Award	Pre Doc	Y
Yuqing Gong -UTennHSC	Santosh Kumar	Reg waiver only	Pre Doc	Y
Kristen McLaurin-USC	Charles Mactutus	Reg waiver only	Pre Doc	N
Jessica Proulx-UNTexas	AnujaGhorpade	Reg waiver only	Pre Doc	N
Thomas Cirino-Uflorida	Jay McLaughlin	Reg waiver only	Pre Doc	N
Allen Caobi-FIU	Andrea Raymond	Reg waiver only	Pre Doc	N

POSTDOCS				
Candidate	Mentor	Recommendation	Position	Talk
Silvia Torices del Val-UMiami	Michal Toborek	Travel Award	Post Doc	Y
Hina Singh-UCR	Marcus Kaul	Travel Award	Post Doc	Y
Purnima Gupta-FIU	Madhavan Nair	Travel Award	Post Doc	Y
Stephanie Matt-Drexel	Peter Gaskill	Reg waiver only	Post Doc	Y
Andrew Atkins-Drexel	Brian Wigdahl	Reg waiver only	Post Doc	Y

UNDERGRADUATES				
Jonathan Abshier-UTRGV	Upal Roy	Reg waiver only	Undergraduate	N

Update on CRISPR Technology

Rafal Kaminski, Ph.D.

(Edited by Ilker K. Sariyer, D.V.M., Ph.D.)



The discovery of the CRISPR-Cas system is becoming one of the most important scientific breakthroughs of this century. Initially identified as an acquired immune system in archaea and bacteria, in 2012, it was adapted as a gene-editing tool for eukaryotic cells, including that of human origin (1, 2). The precision, simplicity of use, high efficiency, relatively low cost, and easy accessibility to users of the CRISPR technology resulted in the "democratization" of the genome-editing field formerly reserved only to a few well-funded laboratories (3). Every year

new research leads to continued upgrades and increase of the impact of CRISPR-Cas technology on modern biology, revolutionizing medicine as we speak and holds the promise to cure and ease the burden of many previously untreatable diseases. There are currently around 19 clinical trials using CRISPR alone or in combination with other therapies to treat various types of cancer, genetic blood disorders, congenital blindness, HPV, and HIV disease (Table below, clinicaltrials.gov). In the case of cell-based therapy for cancer, T cells are removed from patients, genetically modified in the lab and infused back into the body. The primary CRISPR target for cancer treatment is an inhibitory immune checkpoint molecule called programmed cell death 1 (PD-1). The knockout of PD-1 on T cells improves their anti-tumor activity. If it comes to CAR-T (chimeric antigen receptor) cell therapy, where T cells are re-engineered to express a synthetic tumor antigen directed T cell receptors, CRISPR is used to knock down the endogenous T cell receptor genes to reduce TCR mispairing and improve the expression of CAR (4). There are several trials designed to treat genetic blood disorders characterized by depletion of oxygen-carrying hemoglobin: sickle-cell anemia and β -thalassemia. Two of them use CRISPR to disrupt the BCL11A suppressor gene and thus restore the expression of fetal hemoglobin gene in CD34+ hematopoietic stem cells, which are then infused to the patients (5).

Condition or disease	Phase	# of patients	Status	CRISPR target genes	Therapeutic strategy	country	Identifier
Esophageal Cancer	N/A	16	Completed	PD-1	adoptive transfer of autologous T cells	China	NCT03081715
Metastatic Non-small Cell Lung Cancer	I	12	Active, not recruiting	PD-1	adoptive transfer of autologous T cells	China	NCT02793856
EBV associated malignances	I, II	20	Recruiting	PD-1	adoptive transfer of autologous T cells	China	NCT03044743
Solid tumors expressing mesothelin	I	10	Recruiting	PD-1	adoptive transfer of mesothelin directed CAR-T cells	China	NCT03747965
Acute Lymphocytic Leukemia	I	40	Recruiting	HPK1	adoptive transfer of autologous CD19 directed CAR-T cells	China	NCT04037566
T-cell Acute Leukemia	I	21	Not yet recruiting	CD7	adoptive transfer of autologous CD7 directed CAR-T cells	USA	NCT03690011
Multiple Myeloma, Melanoma and other	I	3	Active, not recruiting	TCR, PD-1	adoptive transfer of autologous NY-ESO-1 directed CAR-T cells	USA	NCT03399448
Solid tumors expressing mesothelin	I	10	Recruiting	TCR, PD-1	adoptive transfer of mesothelin directed CAR-T cells	China	NCT03545815
Multiple Myeloma	I	80	Recruiting	TCR, MHC I ($\beta 2M$)	adoptive transfer of allogeneic BCMA directed CAR-T cells	USA	NCT04244656
Non-Hodgkin Lymphoma	I, II	95	Recruiting	TCR, MHC I ($\beta 2M$)	adoptive transfer of allogeneic CD19-directed CAR-T cells	USA	NCT04035434
B Cell Leukemia/Lymphoma	I, II	80	Recruiting	TCR, MHC I ($\beta 2M$)	adoptive transfer of allogeneic CD19 redirected CAR-T cells	China	NCT03166878
B Cell Leukemia/Lymphoma	I, II	80	Recruiting	TCR, MHC I ($\beta 2M$)	adoptive transfer of allogeneic CD19+CD20/22 directed CAR-T cells	China	NCT03398967
β -Thalassemia	I, II	45	Recruiting	enhancer of the BCL11A	adoptive transfer of autologous CD34+ hHSPCs	USA/EU/Can	NCT03655678
Sickle Cell Disease	I, II	45	Recruiting	enhancer of the BCL11A	adoptive transfer of autologous CD34+ hHSPCs	USA/EU/Can	NCT03745287
β -Thalassemia/Sickle Cell Disease	follow up	90	Not yet recruiting	enhancer of the BCL11A	adoptive transfer of autologous CD34+ hHSPCs	USA/EU/Can	NCT04208529
β -Thalassemia	early I	12	Not yet recruiting	HBB (gene correction)	adoptive transfer of autologous iHSCs	China	NCT03728322
Leber Congenital Amaurosis Type 10	I, II	18	Recruiting	CEP290 (gene correction)	subretinal injection of AAV5 carrying CRISPR-Cas9 gene editing	USA/EU	NCT03872479
HPV and related malignancy	I	60	unknown	HPV16 and HPV17 E6/E7	hydrogel containing CRISPR-Cas9 plasmid for in situ application	China	NCT03057912
HIV-1 infection	N/A	5	Recruiting/on hold	CCR5	adoptive transfer of autologous CD34+ hHSPCs	China	NCT03164135
CANCER							
HEREDITARY GENETIC DISORDER							
INFECTIOUS DISEASE							

Update on CRISPR Technology (continue)

Rafal Kaminski, Ph.D.

(Edited by Ilker K. Sariyer, D.V.M., Ph.D.)

A similar approach was used in a trial to treat HIV infection by infusing a patient with CCR5 edited CD34+ cells. A low number of transplanted edited cells (~5%) failed to cure disease, putting that study on hold until better editing efficiency can be achieved (6). Last year the very first trial attempting direct gene editing inside the body was launched to treat a genetic disorder that causes blindness, Leber congenital amaurosis type 10 (LCA10) (7). The AAV5 carrying CRISPR-Cas9 therapeutic able to correct and restore normal expression of CEP290 gene, mutated in LCA10, will be subretinally injected into the eyes of patients. Many other CRISPR based therapies that currently are in the preclinical phase will move into the clinic in the coming years. These include congenital muscular dystrophies, Huntington's disease, hemophilia, hereditary deafness, cystic fibrosis as well as multifactorial diseases such as diabetes, and genetic coronary heart disease (8). Recently reported search-and-replace CRISPR genome editing systems called prime editors if successful in vivo could, in principle, be used to correct up to 89% of human disease-associated genetic variants (9). Finally, if it comes to HIV cure research, the study published last year potentially eliminated HIV-1 in a subset of infected humanized mice using a combination of a long-acting slow-release ART (LASER ART) and AAV9 delivered multi-target anti-HIV-genome CRISPR-Cas9 providing a new strategy toward HIV eradication in HIV positive patients (10). Regardless of these advances, it is too early to draw any final conclusions about safety and potency of CRISPR-Cas9 therapies since too few people have been treated so far. The case of a Chinese researcher, He Jiankui, who irresponsibly and against international regulations used CRISPR for the engineering of human embryos leading to the birth of the first-ever gene-edited babies, Lulu and Nana, is deeply disturbing and unethical (11). CRISPR technology should be used only for curing life-threatening and untreatable illnesses using a cautious approach with respect of ethical matters.

References:

1. Cong L, Ran FA, Cox D, Lin S, Barretto R, Habib N, et al. Multiplex genome engineering using CRISPR/Cas systems. *Science*. 2013 February 15;339(6121):819-23.
2. Mali P, Yang L, Esvelt KM, Aach J, Guell M, DiCarlo JE, et al. RNA-guided human genome engineering via Cas9. *Science*. 2013 February 15;339(6121):823-6.
3. Doudna JA, Charpentier E. Genome editing. The new frontier of genome engineering with CRISPR-Cas9. *Science*. 2014 November 28;346(6213):1258096.
4. Stadtmauer EA, Fraietta JA, Davis MM, Cohen AD, Weber KL, Lancaster E, et al. CRISPR-engineered T cells in patients with refractory cancer. *Science*. 2020 February 06.
5. Metais JY, Doerfler PA, Mayuranathan T, Bauer DE, Fowler SC, Hsieh MM, et al. Genome editing of HBG1 and HBG2 to induce fetal hemoglobin. *Blood Adv*. 2019 November 12;3(21):3379-92.
6. Xu L, Wang J, Liu Y, Xie L, Su B, Mou D, et al. CRISPR-Edited Stem Cells in a Patient with HIV and Acute Lymphocytic Leukemia. *N Engl J Med*. 2019 September 26;381(13):1240-7.
7. Maeder ML, Stefanidakis M, Wilson CJ, Baral R, Barrera LA, Bounoutas GS, et al. Development of a gene-editing approach to restore vision loss in Leber congenital amaurosis type 10. *Nat Med*. 2019 February 01;25(2):229-33.
8. Kotagama OW, Jayasinghe CD, Abeysinghe T. Era of Genomic Medicine: A Narrative Review on CRISPR Technology as a Potential Therapeutic Tool for Human Diseases. *Biomed Res Int*. 2019 October 07;2019:1369682.
9. Anzalone AV, Randolph PB, Davis JR, Sousa AA, Koblan LW, Levy JM, et al. Search-and-replace genome editing without double-strand breaks or donor DNA. *Nature*. 2019 December 01;576(7785):149-57.
10. Dash PK, Kaminski R, Bella R, Su H, Mathews S, Ahooyi TM, et al. Sequential LASER ART and CRISPR Treatments Eliminate HIV-1 in a Subset of Infected Humanized Mice. *Nat Commun*. 2019 July 02;10(1):2753-y.
11. Cyranoski D. The CRISPR-baby scandal: what's next for human gene-editing. *Nature*. 2019 February 01;566(7745):440-2.

2019-2020 President's Message

Sulie L. Chang, Ph.D., -- President



Greetings to all! As the President and a charter and patron member of SNIP, I welcome you to the Society that is celebrating its 26th anniversary since its inception in 1993. We are looking forward to our 2020 meeting to be held in New Delhi, India from April 1-4.

For those who may not know me well. I am the Founding Director of the Institute of Neuroimmune Pharmacology and Professor of Biological Sciences and Neuroscience at Seton Hall University and the Adjunct Professor of Graduate Program in Endocrinology & Animal Biosciences at Rutgers Graduate School. I have dedicated my research career to studying the interactions between the nervous and immune systems in health and diseases. Originally educated in sociology and social psychology, I jumped into biochemistry and cell biology, developed my early career in anatomy, physiology and neuroscience, and landed in neuroimmune pharmacology. I appreciate and enjoy inter-, multi- and cross- disciplinary research. Particularly, I sincerely thank our SNIP leaders in the last quarter century for initiating and advancing our great Society to continuously define and redefine the neuroimmune axis, integrating many disciplines including HIV/AIDS and drugs of abuse. We SNIP members have been able to rise high and go far by standing on these SNIP giants' shoulders.

As a charter member, I always like to share the story of our great Society. In 1993, the four founding members Drs. Burt M. Sharp, Jean M. Bidlack, Robert M. Donahoe, and Thomas W. Klein implemented this Society. In 2001, our SNIP By-Laws and Handbook (SNIP-BL&H) were officially approved. As the current President, I am proud to note that Council and I have abided by the SNIP-BL&H that were posted on the SNIP website. The last update of the SNIP-BL&H was completed in March 2017 and was posted on our website on June 19, 2019. We have realized the oversight in the delayed posting of the SNIP BL&H update and we will promptly post any update of the SNIP BL&H in the future.

As an immigrant from Taiwan originally, I would like to highlight our newest committee – the Diversity and Inclusion Committee (DISC), which addresses membership equity, inclusion and diversity. We at SNIP believe in, respect and practice membership diversity of all kinds. Furthermore, to support the incredibly important goals of cultural exchange, diversity, and inclusion, we will hold a DISC session for trainees and mentors at the beginning of the 2020 meeting. The speaker for the DISC session is Dr. Thirumala-Devi Kanneganti. The SNIP DISC has become a model for many other professional societies.

As described in our SNIP BL&H, we choose our society officers by democratic election. Our officers organize and lead the Society, host the annual SNIP conference, maintain our website (s-nip.org), and support and promote our journal, the Journal of Neuroimmune Pharmacology (JNIP). This democracy has been essential in moving our Society forward. Our website is informative, containing current meeting information, and our membership application and renewal forms. In addition to dissemination of research findings within our SNIP community, JNIP has been a leading journal of neuroimmunology, neurobiology and neuroHIV/AIDS. I thank the JNIP Founder and Editor-in-Chief, Dr. Howard Gendelman, for his outstanding leadership and thank the publisher Springer for their pleasant partnership with our Society. Our upcoming 2020 SNIP conference is the first US-Indo SNIP meeting. This historical 26th Annual Meeting will begin the next quarter century of SNIP history. The conference goal is to gather neuroimmune pharmacologists from around the world to southwestern Asia. The focus of the SNIP New Delhi meeting is for "Research, Mentoring and Community Dissemination". SNIP's Meeting Committee, led by President-Elect Dr. Santosh Kumar, including the other Executive Committee members Drs. Sanjay Maggirwar, Jean M. Bidlack, Gurudutt Pendyala, Sowmya Yelamanchili, Ilker Sariyer, Nazira El-Hage, and myself have invited great scientists from around the world, within and beyond SNIP communities, with plans to engage in productive networking, mentor-mentee connections and research and cultural dissemination.

2019-2020 President's Message (continue)

We thank our Local Meeting Director, Dr. Pankaj Seth and our host institute, the distinguished National Brain Research Center (NBRC), for our greatly anticipated meeting. We will begin our meeting with the Local Symposium will highlight the studies by the investigators from our host country, a Technical Talk, a tour of the research facilities, and the NIH sponsored symposium at the NBRC. Then we will return to the LaLiT hotel for registration, poster session, reception and musical performance, and the DISC session. Immediately following the Inauguration/ Welcome by the president there will be the President Plenary Lecture on eradication of HIV/AIDS by Dr. Kamel Khalili. We will have five themed plenary lectures covering cutting-edge topics in neuroimmune pharmacology from the integration of nanotechnology into pharmacological interventions to the latest findings in autoimmune associated epilepsies. Plenary lecturers include Drs. Barbara Mason, Rajita Sinha, Madhavan Nair, Manjari Tripathi, and Kalipada Pahan. Complementing the President Symposium on neuroimmune signaling in health and substance abuse given by Drs. Fulton Crews, Dipak Sarkar, Adolf Pfefferbaum, Subhash Pandey, we have six additional symposia on a wide variety of topics that are highly relevant to the neuroimmune axis. Symposium 1 on Theranostics given by Drs. Xiaoyuan Chen, Howard Gendelman, and Prasanta Kumar Dash. Symposium 2 on Substance Abuse, HIV Infection and Associated Disorders, given by Drs. Mohan Sopori, Navneet Dhillon, Hitendra S Chand, and Siddappa Byrareddy. Symposium 3 on Extracellular Vesicles in Substance Abuse and Neurological Disorders, given by Drs. Wenzhe Ho, Allison Andrews, Sowmya Yelamanchili, Andrea Raymond, and Ilker Sariyer. Symposium 4 on Drug Abuse, Alcohol and Medication, given by Drs. Friedbert Weiss, Zheng-Xiong Xi, Hwei-Hsien Chen, Ping Zhang, and Emmanuel Onaivi. Symposium 5 on Autophagy and Neuroinflammation: from Mechanism to Therapeutic Opportunities, given by Drs. Nazira El-Hage, Mashkoor Choudhry, Shilpa Buch, and Yuri Persidsky. Speakers at the Regional Symposium, which is first of its kind in the history of SNIP annual meeting, are from around the world including Drs. Lim Lee Wei (Hong Kong), George Reiser (Germany), Musthafa Mohammed Essa (Oman), and Walid W. Qoronfleh (Qatar). As in the past, we have two special lectures in the memory of Dr. Bill Narayan and Adarsh Kumar. These lectures will be presented by Drs. Rosemarie Booze and Michal Toborek, respectively. We will be holding a poster session for both early career and established investigators. There will be a workshop to discuss how the microbiota might modulate the neuronal-immune system discussion lead by Drs. Sabita Roy, Shirish S. Barve, and other panelists. In addition to the scientific presentations, this year's meeting will provide opportunities for early career investigators through mentoring and trainee poster sessions as well as opportunities for junior and mid-career investigators to help establish their career by providing an examination of the pathway to independence. The Early Career Investigator Committee, led by Dr. Gurudutt Pendyala, has provided travel awards to more than 55 early-career investigators. On Friday evening, there will be the ceremony for the transition of the Presidency, awards celebration, and conference banquet and cultural performance by graduate students from our host country. The meeting will conclude on Saturday afternoon with a cultural city tour. On the day following the close of the meeting, SNIP has arranged for delegates to have the option of a discounted all-day trip to the Taj Mahal in Agra

India has amazing diversity, colorful cultural richness, and incredible hospitality. New Delhi is the capital of modern India fusing and evoking India's past, present, and future with an abundance of identity. Nestled in the heart of the capital, The LaLiT New Delhi is an iconic property within close proximity to key business locations and just minutes away from Heritage monuments, cultural attractions, shopping centers and trade fair grounds. It is the perfect location for our international meeting, featuring scientists from more than a dozen countries, from rising stars to world-renowned biomedical scientists. At least once in a lifetime, one should visit India, and attending the 26th Annual Meeting of the Society on NeuroImmune Pharmacology at the Lalit Hotel in New Delhi could be a great start! I am looking forward to seeing you all in New Delhi to see what and how great minds have done in neuroimmune pharmacology this April!



SNIP Meetings Committee

Chair: Santosh Kumar (ksantosh@uthsc.edu)
Co-chair: Jun Zhu (zhui@cop.sc.edu)

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Cecelia Marcondes
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Allison Andrews
Yisel Cantres
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Local Organizing Committee

Chair: Pankaj Seth (pseth.nbrc@gov.in)

Sourav Banerjee
Saravana Babu Chidambaram
Anirban Basu

*For question related to meeting organization, please email to Drs. Santosh Kumar, Jun Zhu, and Pankaj Seth.
For any other question, please email to the Secretary, Dr. Jean M Bidlack (Jean_Bidlack@URMC.Rochester.edu)*

Message from SNIP Meetings Committee By Santosh Kumar



Dear Delegates,

On behalf of the meeting committee, I take this opportunity to welcome you all at the first Indo-US SNIP meeting at New Delhi, India with a motto "To bring the global neuroimmune pharmacologist together". On this occasion, I also convey my deep appreciation and thanks to all the delegates who have come here from across the globe. I ensure that you will enjoy every moment of the meeting. As described below in the "Program in brief", we have brought a wealth of knowledge and experience, and more importantly personality who are among the best in the world in the field of neuroimmune pharmacology. In addition to speakers from the US, India, and other Asian countries, we have several programs to promote our trainees, early- and mid-career investigators, and scientists from diverse background including women. We have also planned a Gala banquet with Indian cultural dance and music to celebrate our 26th annual meeting, recognize and award special delegates and meeting organizers, and to thank you. Further, we have planned tours to many Indian monuments including "Taj Mahal". I hope and trust that you will have the "Scientific meeting of your life" moment here at New Delhi, India.

Sincerely, Santosh.

Meeting Highlights : Preconference, President, Local, Regional, and General symposia; General and Trainee poster sessions; Keynote talks; "Bill Narayan" and "Adarsh Kumar" Memorial Lectures; Early Career Investigator presentations; Session for Diversity and Inclusion; Session for Junior and Mid-career Investigators; Banquet, Cultural Program, and Award Ceremony; Tour to Famous landmarks in Delhi and "Taj Mahal", Agra.

Message from Local Organizing Committee By Pankaj Seth



Dear Delegates,

As Chair of the Local organizing committee, I assure you that SNIP 2020 to be an enriching scientific event that will have participation of senior officials from NIH, researchers from USA & other countries that are pioneers in the field of neuroimmune pharmacology and neuroscience. The meeting would provide an opportunity to renew professional connections, make new ones, explore collaboration and strengthen the professional network. One of the ideas of having an international meeting of SNIP was to have a global foot print of SNIP community. We are enthused with the response of SNIP members for attending the meeting in India. To reciprocate your enthusiasm and support for the meeting, our team is working hard to make it a memorable meeting by offering a great scientific retreat during April 1-4, 2020. As this is the first annual meeting of SNIP being organized in India, we want to showcase not only the cutting edge research done in the South East Asia, and Indian laboratories but also give you a flavor of Indian heritage and hospitality, during a city tour on one of the evenings. We will also provide a tour of the National Brain Research Centre, an Institute of Excellence in neuroscience in the region, on first day of the meeting, while rest of the meeting will be at The Lalit Hotel, one of the best hotels in heart of New Delhi. Looking forward to interacting with you all in New Delhi, Sincerely, Pankaj.

2020 SNIP New Delhi / India Meeting AGENDA

Time/period	Events
Tuesday March 31, 2020	
5:00 pm-6:30 pm	Council meeting
6:30 pm-9:00 pm	Council dinner
Wednesday April 1, 2020	
8:00 am Departure from Hotel Lalit to National Brain Research Center (NBRC)	
9:30 am-11:30 am	Local Symposium: Neuroinflammation and Autophagy Introduction: Pankaj Seth, Ph.D. Co-Chairs: Anirban Basu, Ph.D. , Professor, National Brain Research Centre (NBRC), Manesar, India Luay Rashan, Ph.D. , Professor, Dhofar University, Salalah, Oman Speakers 1. Manjula Kalia, Ph.D. , Regional Centre of Biotechnology, Faridabad, India Title: Pharmacological modulation of Autophagy as a potential therapeutic for Japanese encephalitis. 2. Sunit Singh, Ph.D. , Professor, Banaras Hindu University, Varanasi, India Title: Viruses: Hijackers of Host microRNAs. 3. Jayasri Das Sarma, Ph.D. , Professor, Indian Institute of Scientific Education and Research-Kolkata, India Title: Functional regulation of gap junction intercellular communication in viral induced neuro-inflammation. 4. Eshwaran Sreekumar, Ph.D. , Senior Scientist, Rajiv Gandhi Centre for Biotechnology, Trivandrum, India Title: Cytoplasmic role of Nucleophosmin (NPM1)/B23 in restricting Chikungunya virus replication in human astrocytic cells. 5. Ellora Sen, Ph.D. , Senior Scientist, National Brain Research Centre, Manesar, India Title: Inflammation, metabolism and circadian clock in brain tumors 6. Saravana Babu Chidambaram, PhD , JSS College of Pharmacy, Mysuru & Coordinator, Centre for Experimental Pharmacology & Toxicology, JSS Academy of Higher Education & Research, Mysuru, India, Title: Metformin activates AMPK-mTORC1- beclin-1 -mediated autophagy and alleviates pathogenic accumulation of b-amyloid in chronic sleep restricted rats brain.
	7. Sourav Banerjee, Ph.D. , Senior Scientist, National Brain Research Centre, Manesar, India Title: Trash or Treasure? Long non-coding RNAs in age-regulated memory deficits
11:30 am-12:00 noon	Technical Talk by Sponsors
12:00 noon-12:30 pm	Tour of research facilities at NBRC/Group Photograph
12:30 pm-1:30 pm	Lunch at NBRC
1:30 pm-3:30 pm	NIH Sponsored Symposium at NBRC Opening Remark: Yu (Woody) Lin, M.D. and Ph.D. , Program Director, Integrative Neuroscience Branch, Division of Neuroscience and Behavior, National Institute on Drug Abuse/NIH, Bethesda, MD, USA Roger Sorensen, Ph.D. , Branch Chief, Integrative Neuroscience Branch, Division of Neuroscience and Behavior, National Institute on Drug Abuse/NIH, Bethesda, MD, USA Attributes of Substances of Abuse in NeuroHIV Speakers: TBA New Vision and Innovation in SUD x neuroHIV Speakers: TBA
3:30 pm-4:30 pm	Transfer from NBRC to The Lalit Hotel
4:30 pm - 8.00 pm	Registration at the Lalit Hotel
4:30 pm-7:30 pm	Poster session: Drs. Gurudutt Pendyala, Jun Zhu and Pankaj Seth Reception: Finger snacks & drinks
7:30 pm - 8.00 pm	Opening ceremony and music performance
8:00 pm - 9.30 pm	DISC session for trainees and invited mentees: Dr. Sowmya Yelamanchili Speakers: Thirumala-Devi Kanneganti, Ph.D. , St. Jude Children's Research Hospital, Memphis, TN, USA Title: Molecular targets for the treatment of inflammatory diseases, infection, and cancer

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Thursday April 2, 2020	
8:00 am-8:15 am	Inauguration/welcome by the President: Sulie L. Chang, Ph.D.
8:15 am-8:45 am	<p>President Plenary Lecture Introducer: Sulie L. Chang, Ph.D., Director, Institute of NeuroImmune Pharmacology and Professor, Department of Biological Sciences, Seton Hall University, South Orange, NJ, USA (5 min) Speakers: Kamel Khalili, Ph.D., Laura H. Carnell Professor and Chair, Department of Neuroscience, Director, Center for Neurovirology and Comprehensive NeuroAIDS Center, Lewis Katz School of Medicine, Temple University, Philadelphia, PA, USA (25 min) Title: Toward HIV Cure; The CRISPER Story and More</p>
8:45 am-10:15 am	<p>President Symposium: Neuroimmune Signaling in Health and Alcohol Use Disorders Sulie L. Chang, Ph.D. Director, NeuroImmune Pharmacology, Professor, Department of Biological Sciences, Seton Hall University, South Orange, NJ, USA Co-Chairs: Antonio Noronha, Ph.D., Director, Division of Neuroscience and Behavior, National Institute on Alcohol Abuse and Alcoholism/NIH, Bethesda, MD, USA Horace H. Loh, Ph.D., Regents Professor, University of Minnesota Medical School, Minneapolis, MN, USA and Director, Guangzhou Regenerative Medicine and Health Guangdong Laboratory, General Pain Institute, Guangzhou, China Dr. Horace H. Loh (5 min) Title: Neuroimmune pharmacology of addictive substances: SNIP in the 21st century Speakers 1. Fulton T. Crews, Ph.D. John Andrews Distinguished Professor, Pharmacology and Psychiatry, Director, Bowles Center for Alcohol Studies, School of Medicine, University of North Carolina at Chapel Hill, Chapel Hill, NC, USA Title: Rage, toll-receptor signaling, and epigenetics contribute to long lasting changes in neurocircuitry and behavior 2. Dipak Sarkar, Ph.D. D.Phil. Board of Governors and Distinguished Professor, Department of Animal Sciences, Director, Endocrinology Program, School of Environmental & Biological Sciences, The State University of New Jersey, New Brunswick, NJ, USA Title: Complement Systems Participate in Exosomes Mediated Neurotoxicity 3. Adolf Pfefferbaum, M.D. Professor Emeritus, Stanford University School of Medicine, Stanford, Distinguished Scientist and Senior Director of the Neuroscience Program, Center for Health Science, SRI International, Menlo Park, CA, USA Title: HIV Infection and the Aging Brain: Contributions from Comorbidities, Nutrition, and Peripheral Systems 4. Subhash C Pandey, Ph.D. Professor, Department of Psychiatry, Director, Alcohol Research Center, Senior Research Career Scientist, University of Illinois at Chicago & Jesse Brown VA Medical Center, Chicago, IL, USA Title: Emerging Epigenetic Mechanisms Underlying Alcohol Use Disorders</p>
10:15 am-10:45 am	Coffee/Tea break/Networking
10:45 am-12:15 pm	<p>Symposium 1: Theranostics Chair: Howard Gendelman, M.D., (5 minute introduction) Professor and Chair, Department of Pharmacology, University of Nebraska Medical Center, Omaha, NE, USA Speakers 1. Xiaoyuan Chen, Ph.D., Senior Investigator, Laboratory of Molecular Imaging and Nanomedicine, National Institute of Biomedical Imaging and Bioengineering, National Institutes of Health, Bethesda, USA Title: Nanovaccine as Cancer Immunotheranostics 2. Howard Gendelman, M.D., HIV/AIDS. Professor and Chair, Department of Pharmacology, University of Nebraska Medical Center, Omaha, USA Title: HIV Theranostics 3. Prasanta Kumar Dash, Ph.D., Instructor, Department of Pharmacology and Expt Neuroscience, University of Nebraska Medical Center, Omaha, NE, USA. Title: Detection and Amplification of Replication Competent HIV-1 by Adoptive Transfer of Human Cells from Art Suppressed Infected Humanized Mice.</p>
12:15 pm-1:45 pm	<p>Meet-the-Mentor (MTM) lunch: Co-Chairs Siddappa Byrareddy, Ph.D., Associate Professor, University of Nebraska Med. Ctr., Omaha, NE, and Allison Rodrigues, Ph.D., Assistant Professor, Florida International University, Miami, FL</p>
12:15 pm-1:45 pm	Council meeting
2:00 pm-2:30 pm	<p>Bill Narayan Memorial Lecture Introducer: Sanjay Maggirwar, Ph.D. Professor and Chair, GW Department of Microbiology, Immunology, and Tropical Medicine, The George Washington University, Washington, DC, USA (5 min) Speaker: Rosemarie Booze, Ph.D., Professor and Bicentennial Endowed Chair of Behavioral Neuroscience, Department of Psychology, University of South Carolina, Columbia, SC, USA Title: HIV-1 Associated Neurocognitive Disorders (HAND) Following Chronic Microglial Infection and Viral Protein Production (25 min)</p>
2:30 pm-3:00 pm	<p>Addiction Medication Plenary Lecture Introducer: Syed Ali, Ph.D., Little Rock, AR, USA Speaker: Barbara Mason, Ph.D. Pearson Family Professor, Department of Neuroscience, Director, Pearson Center on Alcoholism and Addiction Research, Scripps Research, La Jolla, CA, USA Title: Alcohol Use Disorders and Potential Treatment (25 min)</p>
3:00 pm-3:30 pm	Coffee/Tea break/Networking
3:30 pm-4:00 pm	<p>US-Indo Plenary Lecture 1 Introducer: Michelle L. Mack, MS. Institute of NeuroImmune Pharmacology, Seton Hall University, South Orange, NJ, USA (5 min)</p>

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	<p>Speaker: Rajita Sinha, Ph.D. Foundations Fund Professor in Psychiatry, Neuroscience and Child Study; Chief, Psychology Section in Psychiatry; Director, Yale Stress Center; Co-Director of Education, Yale Center of Clinical Investigation (Yale Clinical Translational Science Award), Yale University School of Medicine, USA</p> <p>Title: Alcohol and Stress-Immune Axis: Impact on Alcohol Relapse and Pharmacotherapy Outcomes (25 min)</p>
4:00 pm-5:30 pm	<p>Symposium 2: Substance Abuse, HIV Infection and Associated Disorders</p> <p>Co-Chairs:</p> <p>Dr. Hitendra S Chand, Ph.D. Department of Immunology and Nanomedicine, Florida International University, Miami, FL, USA</p> <p>Mohan Sopor, Ph.D. Director, Immunology Program, Lovelace Respiratory Research Institute, Albuquerque, NM, USA</p> <p>Speakers</p> <p>1. Mohan Sopor, Ph.D. Director, Immunology Program, Lovelace Respiratory Research Institute, Albuquerque, NM, USA</p> <p>Title: Role of Airway Epithelial Cells in HIV- and Cigarette Smoke-Associated Obstructive Lung Diseases</p> <p>2. Navneet Dhillon, Ph.D. Professor, Pulmonary and Critical Care Medicine, University of Kansas Medical Center, Kansas City, KS, USA</p> <p>Title: Substance Abuse and HIV Associated Pulmonary Vascular Disease</p> <p>3. Hitendra S Chand, Ph.D. Associate Professor, Department of Immunology and Nanomedicine, Florida International University, Miami, FL, USA</p> <p>Title: Long Noncoding RNAs – New Players in Respiratory Epithelial HIV Infections and Pathologies</p> <p>4. Siddappa Byrareddy Ph.D. Associate Professor, Department of Pharmacology and Experimental Neuroscience, University of Nebraska Medical Center, Omaha, NE, USA</p> <p>Title: Drugs of Abuse and SIV Reservoirs</p>
5:30 pm-5:45 pm	Break
5:45 pm-6:45 pm	<p>Microbiome Workshop: The microbiota modulation of the neuronal-immune system.</p> <p>Chair: Kendall Bryant, Ph.D., Director of HIV/AIDS Research at National Institute on Alcohol Abuse and Alcoholism and Scientific Collaborator of the Consortiums for HIV/AIDS and Alcohol Research Translation (CHAART), NIH Bethesda, MD, USA</p> <p>Preface: Sabita Roy, Ph.D., Professor, Department of Surgery, University of Miami Health System, Miami, FL, USA (10 min)</p> <p>Speaker: Shirish S. Barve, Ph.D. Professor, Department of Medicine and Pharmacology and Toxicology, University of Louisville, Louisville, KY, USA</p> <p>Title: Fecal Microbiome Transplant From Alcoholic Hepatitis Patients Induces Inflammatory Changes in Gut-Brain-Immune Axis in Mice (20 min)</p> <p>Panel list: TBA (to be invited from the conference delegates)</p>
7:00 pm-9:00 pm	Continental buffet dinner
7:00 pm-9:00 pm	The JNIP Editorial Board Dinner Meeting (by invitation only)
Friday April 3, 2020	
8:00 am-8:30 am	<p>Nanotechnology Plenary Lecture</p> <p>Introducer: Dr. Santosh Kumar, Ph.D., Professor, Department of Pharmaceutical Sciences, College of Pharmacy, University of Tennessee Health Science Center, Memphis, TN, USA</p> <p>Speaker: Dr. Madhavan Nair, Ph.D., C.N.S., F.A.C.N., F.A.A.A.I., Distinguished Professor and Founding Chair, Department of Immunology and Nano-Medicine, Associate Vice President of Nanomedicine, Associate Dean of Biomedical Research, Director, Institute of Neurolimmune Pharmacology, Herbert Wertheim College of Medicine, Florida International University, Miami, FL, USA</p> <p>Title: Getting into the Brain: Use of Nanotechnology in Drug Abuse Research (25 min)</p>
8:30 am-10:00 am	<p>Symposium 3: Extracellular Vesicles in Substance Abuse and Neurological Disorders</p> <p>Co-chairs:</p> <p>Servio Ramirez, Ph. D., Associate Professor, Pathology and Laboratory Medicine, Lewis Katz School of Medicine, Temple University, PA, USA</p> <p>Andrea D. Raymond, Ph.D., Associate Professor, Herbert Wertheim School of Medicine, Florida International University, Miami, FL, USA</p> <p>Speakers</p> <p>1. Wenzhe Ho, MD, MPH., Professor, Department of Pathology and Laboratory Medicine, Lewis Katz School of Medicine, Temple University, Philadelphia, PA, USA</p> <p>Title: Exosomes transport anti-viral factors from cervical epithelial cells to HIV-infected macrophages.</p> <p>2. Allison Andrews, PhD, Assistant Professor, Pathology and Laboratory Medicine, Lewis Katz School of Medicine, Temple University, Philadelphia, PA, USA</p> <p>Title: Sending an SOS: Message in Extracellular Vesicles</p> <p>3. Sowmya Yelamanchili, PhD, Assistant Professor, Department of Anesthesiology, University of Nebraska Medical Center, Omaha, NE, USA</p> <p>Title: Role of extracellular vesicles in HIV/drug abuse induced inflammation</p> <p>4. Andrea Raymond, Ph.D., Associate Professor, Herbert Wertheim School of Medicine, Florida International University, Miami, FL, USA</p> <p>Title: Exosomal Extracellular Vesicles are potential indicators of HIV-Associated Neurocognitive Impairment Status</p> <p>5. Ilker Sariyer, Ph.D., Associate Professor, Department of Neuroscience, Temple University, Lewis Katz School of Medicine, Temple University, Philadelphia, PA, USA</p> <p>Title: Molecular and cellular effects of morphine and Nef-EVs on alternative splicing of OPRM1</p>
10:00 am-10:30 am	Coffee/Tea break/Networking

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10:30 am-12:00 pm	<p>Symposium 4: Drug Abuse, Alcohol and Medication</p> <p>Co-Chairs: Syed Ali, Ph.D., Little Rock, AR, USA Jean Noronha, Ph.D., Director, Division of Extramural Activities, National Institute of Mental Health/NIH, Bethesda, MD, USA</p> <p>Speakers 1. Friedbert Weiss, Ph.D. Professor and Principal Investigator, Department of Neuroscience, The Scripps Research Institute, La Jolla, CA, USA Title: Effects of cannabidiol on cocaine seeking: dose-response profiles and neurobiological substrates. 2. Zheng-Xiong Xi, Ph.D. Chief, Addiction Biology Unit, NIDA/NIH, Baltimore, MD, USA Title: Potential treatment of nicotine dependence and addiction by tetrahydrocannabinavarin. 3. Hwei-Hsien Chen, Ph.D. Investigator, National Health Research Institute (NHRI), Taiwan Title: Therapeutic use of ketamine in psychiatric disorders 4. Ping Zhang, MD, Ph.D. Professor and Watanakunakorn Chair, Integrative Medical Sciences, Northeast Ohio Medical University, Rootstown, OH, USA Title: Signaling mechanisms underlying alcohol-mediated granulopoietic dysfunctions. 5. Emmanuel Onaivi, Ph.D. Professor, Department of Biology, WP University, Patterson, NJ, USA Title: Marijuana: Potential treatment of neuropsychiatric disorders</p>
12:00 noon-1:30 pm	Business meeting/lunch (Jean M. Bidlack, Ph.D.)
1:30 pm-2:00 pm	<p>Adarsh Kumar Memorial Lecture</p> <p>Introducer: Sabita Roy, Ph.D., Professor, Department of Surgery, University of Miami Health System, Miami, FL, USA (5 min) Speaker: Dr. Michal Toborek, M.D. Ph.D., Leonard M. Leonard M. Miller Professor and Vice-Chair for Research, Department of Biochemistry and Molecular Biology, Miler School of Medicine, University of Miami, USA. (25 min) Title: Cerebrovascular pathology of HIV infection and drug abuse</p>
2:00 pm-2:30 pm	<p>US-Indo Plenary Lecture 2</p> <p>Introducer: Pankaj Seth, Ph.D. Professor, Molecular and Cellular Neuroscience, National Brain Research Centre, Manesar, Haryana, India (5 min) Speaker: Dr. Manjari Tripathi, Professor, Department of Neurology, All India Institute of Medical Sciences, New Delhi, India (25 min) Title: Autoimmune Epilepsies.</p>
2:30 pm-4:00 pm	<p>Symposium 5: Autophagy and Neuroinflammation: from Mechanism to Therapeutic Opportunities</p> <p>Co-Chairs: Shilpa Buch, Ph.D., Professor, Department of Pharmacology and Experimental Neuroscience, University of Nebraska medical Center, Omaha, NE, USA Nazira El-Hage, Ph. D., Associate Professor, Florida International University, Miami, Florida, USA</p>
	<p>Speakers 1. Nazira El-Hage, Ph. D., Associate Professor, Department of Immunology and Nano-Medicine, Herbert Wertheim College of Medicine, Florida International University, Miami, Florida, USA Title: Function of autophagy and the protein Beclin1 in the neuropathogenesis of opioid and HIV 2. Mashkoor Choudhry, PhD., Professor, Department of Microbiology and Immunology, Loyola University, Chicago, IL, USA Title: Gut immune and microbial changes in response to burn injury 3. Shilpa Buch, Ph.D., Professor, Department of Pharmacology and Experimental Neuroscience, University of Nebraska medical Center, Omaha, NE, USA Title: HIV and cocaine-mediated dysregulated mito/autophagy activates microglia and neuroinflammation 4. Yuri Persidsky, MD, PhD Professor and Chair, Department of Pathology and Laboratory Medicine, Lewis Katz School of Medicine, Temple University, Philadelphia, PA, USA Title: Electronic cigarette exposure disrupts blood-brain barrier integrity and promotes Neuroinflammation</p>
4:00 pm- 4:30 pm	Coffee/Tea break/Networking
4.30 pm-6:00 pm	<p>Early Career Investigator Travel Awardees Symposium</p> <p>Co-Chairs: Gurudutt Pendyala, Ph.D., Assistant Professor, University of Nebraska Med. Ctr., Omaha, NE, USA Cecilia Marcondes, Ph.D., Professor, San Diego Biomedical Research Institute, La Jolla, CA, USA</p> <p>Part I: Predoctoral Speakers: (5 min presentations) 1. FP Luongo, Temple University (Kaminski Lab) Title: Reversing metastatic potential of melanoma cells by CRISPER mediated knockout of the ALCAM gene 2. Y Abu, University of Miami (Roy Lab) Title: Effect of adolescent gut microbiota depletion on adult morphine reward 3. S Yarandi, Temple University (Sariyer Lab) Title: NEF contributes to the development of HIV CNS dysfunction 4. Abhishek Bose, Indian Institute of Science Education and Research (Jaisari Lab) Title: Molecular chaperone ERP29 regulates viral induced altered gap junction protein CONNEXIN43 mediated cell to cell communication 5. V Kumar, National Brain Research Center (Jana Lab) Title: Role of simvastatin in restoration of behavioral deficits in angelman syndrome mouse model 6. Neela Sampat, Sultan Qaboos University (Samir Al-Adawi lab) Title: Role of vitamin D in neuro-degeneration and neuro immunology</p> <p>Q & A session part I</p> <p>Part II: Postdoctoral Speakers (5 min presentations) 1. TP Buzhdygan, Ph.D., Temple University (Ramirez lab) Title: Synthetic cathinone mephedrone compromises blood brain barrier and promotes HIV-1 infection</p>

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	<p>2. Sneham Tiwari, Ph.D., University of Nebraska Medical Center (Pendyala Lab) Title: Novel brain derived extracellular vesicles and inflammasome signatures associated with acute and chronic methamphetamine exposure: a systems biology approach</p> <p>3. R Bhagat, Ph.D., National Brain Research Center (Seth Lab) Title: Characterization of neurotropic virus-induced acute flaccid paralysis and spinal motor neuron death</p> <p>4. Sunitha Konidela, Ph.D., University of Tennessee Health Science Center (Kumar Lab) Title: Proteomic and cytokine profiling of plasma extracellular vesicles derived from HIV-infected alcohol drinkers and cigarette smokers</p> <p>5. Ernest Chivero, Ph.D., University of Nebraska Medical Center (Buch Lab) Title: Engineered extracellular vesicles loaded with mir-124 attenuate cocaine mediated activation of microglia</p> <p>Q & A session part II</p>
7:00 pm-10:00 pm	Transition of Presidency, Banquet, and Awards Ceremony (Drs. Sulie L. Chang and Santosh Kumar)
	Saturday April 4, 2020
8:00 am-8:30 am	<p>Neurology and Therapeutics Plenary Lecture Introducer: Steven A. Masi, Research Fellow, Institute of NeuroImmune Pharmacology, Seton Hall University, South Orange, NJ, USA (5 min) Speaker: Kalipada Pahan, Ph.D. Professor of Neurological Sciences, Biochemistry and Pharmacology, Floyd A. Davis, M.D., Endowed Chair in Neurology, Rush University Medical Center, Research Career Scientist, Department of Veterans Affairs, Jesse Brown VA Medical Center, Chicago, IL, USA Title: Novel Hippocampal Drugs for Alzheimer's Disease (25 min)</p>
8:30 am-10:00 am	<p>Regional Symposium: Introduction: Pankaj Seth, Ph.D. Co-Chairs: Professor Neeraj Jain, Ph.D. Director, National Brain Research Centre, Manesar, Haryana, India Changan Xu, Ph.D., Third Institute of Oceanography, MNR, Xiamen, China, PR Speakers (15+3 min each)</p> <p>1. Lim Lee Wei, Ph.D., LKS Faculty of Medicine, School of Biomedical Sciences, Hong Kong Medical University, Hong Kong Title: Deep brain stimulation enhances mood and memory functions through hippocampal anti-neuroinflammatory and neurogenesis mechanisms in animal models.</p> <p>2. George Reiser, Ph.D. Institut für Inflammation und Neurodegeneration (Neurobiochemie) Medizinische Fakultät der Otto-von-Guericke Universität Magdeburg, Germany Title: Molecular mechanisms of neuroprotection: Focus on mitochondria and fatty acids.</p> <p>3. Musthafa Mohamed Essa, Ph.D. Associate Professor, College of Agricultural and Marine Sciences, Sultan Qaboos University, Muscat, Oman Title: Possible benefits of natural molecules on synaptic dysfunction and neuro-inflammation in Neurodegenerative disease models</p> <p>4. Walid M. Qoronfleh, Ph.D., MBA, Director of Research and Policy, World Innovation Summit for Health, Education City, Doha, Qatar Title: Neuroinflammation and Behavioral Changes in Autism-personalized Diet Intervention and Therapy for Autism Management</p>
10:00 am-10:30 am	Coffee/Tea break/Networking
10:30 am-12:00 noon	<p>Symposium 6: Advances in neuropharmacological therapy in HIV-1 infection and drug abuse Co-chairs: Jun Zhu, MD., Ph.D., Professor, Department of Drug Discovery and Biomedical Sciences, College of Pharmacy, University of South Carolina, Columbia, SC, USA Rafal Rafal Kaminski, Ph.D., Assistant Professor, Temple University, Neuroscience, Lewis Katz School of Medicine, Temple University, Philadelphia, PA, USA</p> <p>Speakers (7+2 min) 1. Ibolya Edit Andras, MD, Assistant Research Professor, Biochemistry and Molecular Biology, University of Miami School of Medicine, Miami, FL, USA Title: Extracellular Vesicle-Mediated Amyloid Transfer to Neural Progenitor Cells: Implications for Rage and HIV Infection.</p> <p>2. Jean M. Bidlack, Ph.D., Professor and Vice Chair, Department of Pharmacology and Physiology, University of Rochester, School of Medicine and Dentistry, Rochester, NY, USA. Title: Fibroblast Growth Factor 21 (FGF21) Attenuates Morphine Preference, Tolerance, and Dependence.</p> <p>3. Jun Zhu, MD., Ph.D., Professor, Department of Drug Discovery and Biomedical Sciences, College of Pharmacy, University of South Carolina, Columbia, SC, USA. Title: Novel Allosteric Modulatory Effects of SRI-32743 on HIV-1 Tat Protein-induced Inhibition of Human Dopamine Transporter and Potentiation of Cocaine Reward in HIV-1 Tat Transgenic Mice.</p> <p>4. Theodore J Cory, Pharm.D., Ph.D., College of Pharmacy, University of Tennessee Health Science Center, Memphis, TN 38016. Title: Multi-drug resistance associated protein 1 inhibition increases intracellular drug concentrations and suppresses HIV-1 viral replication in ethanol exposed activated macrophages.</p> <p>5. Jerel Adam Fields, Ph.D., Assistant Professor, Department of Psychiatry, University of California, San Diego, La Jolla, CA, USA. Title: Transcriptomic Analysis of Brain Tissues Identifies A Role CCAAT Enhancer Binding Protein Beta in HIV-Associated Neurocognitive Disorders.</p>

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	<p>6. Wei Jiang, MD & MS, Associate Professor, Microbiology and Immunology, Medical University of South Carolina, Charleston, SC, USA. Title: Increased Plasma Levels of Lipopolysaccharide are Associated with Neuro-inflammation and Blood-Brain Barrier Permeability in HIV-1 Infection, But not with Lipopolysaccharide Detection in the Cerebrospinal Fluid.</p> <p>7. Xiangqian Liu, MD., Ph.D., Instructor, Department of Histology and Embryology, Huazhong University of Science and Technology, Tongji Medical College, Wuhan, China Title: Puberty Involvement in Binge Exposure to Ethanol-Induced Differential Spleen Atrophy in Adolescent F344 Rats.</p> <p>8. Maria Cecilia Marcondes, Ph.D., Assistant Professor, Neuroimmunology Program, San Diego Biomedical Research Institute, San Diego, CA, USA Title: HIV-1 Tat Protein Expression in Transgenic Mouse Brains Antagonizes the Impact of Methamphetamine Sensitization in Gene Expression.</p> <p>9. Shao-Jun Tang, Ph.D., Professor, Department of Neuroscience and Cell Biology, University of Texas Medical Branch, Galveston, TX, USA Title: Opioids and HIV-1 Gp120 Cooperatively Promote Pathogenesis in the Spinal Pain Neural Circuit.</p>
12:00 pm -1:30 pm	<p>Roadway to independence and shielding the mid-career saturation: Panel discussion for junior and mid-career investigators Moderator: Dr. Santosh Kumar Speakers: Jean M. Bidlack, Ph.D., Sanjay Maggirwar, Ph.D., Santhi Gorantla, Ph.D., Samander Kaushik, Ph.D., Manjunatha Venkataswamy, Ph.D. J. H. He, Ph.D., NIH colleagues, and others (will be invited later) Lunch</p>
1:30 pm-7:30 pm	Free time for delegates for heritage and cultural tour of the city, dinner etc.
Sunday April 5, 2020	
All day trip to India's one of the most visited destination – The Taj Mahal, Agra	