# CURRICULUM VITAE

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# ACADEMIC BACKGROUND

1987 Ph.D., in Neuropharmacology, University of Bradford, England 1985 M.Sc., in Pharmacology, University of Bradford, England

1978 B. Pharm., (Hons), University of Benin, Nigeria

# PROFESSIONAL EXPERIENCE

2020--present Director, William Paterson University (WPU) Animal Research Laboratory 2020--present Chairman WPU, Institutional Animal Care and Use Committee

2022--present NIH- ZRG1 BN-R 86 reviewer

2022--present William University Faculty Senator

2013--2014 Fulbright Scholar, Addis Ababa University, Addis Ababa, Ethiopia 2014--present Honorary Professor, Addis Ababa University, Addis Ababa, Ethiopia

2013--2013 Reviewer for German-Israel Foundation for Scienctific Research and development 2012--2012 NIH-NPAS Grant reviewer

2011--present Professor of Biology, WPU, and Wayne, New Jersey 2011--2011 AAAS-Grant reviewer

2009--present Professor, WEB DuBois Institute, Princeton University, Princeton, New Jersey 2009--2009 Chairman WPU University Range Adjustment Committee

2007--2011 Associate Professor, WPU, and Wayne, New Jersey 2000--2007 Assistant Professor, WPU, and Wayne, New Jersey

2000--2001 Associate Research Professor, Psychiatry and Pharmacology, Vanderbilt, University, Nashville, TN

2000--present Guest Researcher, NIDA-National Institutes of Health, Baltimore, MD 1996--2000 Assistant Research Professor, Psychiatry and Pharmacology, Vanderbilt,

University, Nashville, TN

1995--1996 Adjunct Assistant Research Professor, Psychiatry and Pharmacology, Vanderbilt, University, Nashville, TN

1992--1996 Assistant Professor Pharmacology, Meharry Medical College, Nashville, TN 1990--1992 Visiting Research Scientist, Department of Anesthesiology, Stanford University

School of Medicine and MRI, Palo Alto, California

1989--1990 Research Instructor, Laboratory of Neuroscience, Pennington Biomedical Research Center, Baton Rouge, Louisiana

1987--1989 Postdoctoral Fellow, Department of Pharmacology, Medical College of Virginia, Richmond, Virginia

# AWARDS AND HONORS

2021 William Paterson University Award - Excellence in Scholarship

2015 William Paterson University Award - Excellence in Scholarship

2007 William Paterson University Award - Excellence in Scholarship 2013 Fulbright Scholar Award for Sabbatical at AAU in Ethiopia

2007 William Paterson University Award for Excellence in Scholarship

2004 Council on Undergraduate Research selection and presentation in Capitol Hill before United States Congress

1997 International Brain Research Organization travel award

1994 American College of Neuropsychopharmacology travel award 1993 American College of Neuropsychopharmacology travel award

1989 Biochemical Pharmacology Honorarium as Co-author of “Nature of mecamylamine’s antagonism of the central effects of nicotine”.

1988 College on problems of drug dependence travel awardee

1987 European Neuroscience Association Fellow-Autumn School, Santa Margurita, Italy 1987 European Neuroscience Association Fellow-Winter School, Zuoz, Switzerland

# FEDERAL AND OTHER RESEARCH SUPPORT

2020--2023 NIAAA Grant R15AA027909: “Neuroimmune behavioral effects of CB2 cannabinoid receptors” (PI, E.S. Onaivi)

2012--2016 NIDA Grant R15DA32890: “Behavioral effects of CB2 cannabinoid receptors (CB2Rs)” (PI, E.S. Onaivi)

2013--2014 Fulbright Scholarship Award (PI, E.S. Onaivi)

2003--2009 WPU SURP “Neurobiology of cannabinoid receptors” (PI, E.S. Onaivi)

2001--2001 NIDA Intramural Contract #263-MI-107518 “Cannabinoid project” (PI, E.S. Onaivi) 2001--2001 NIDA Professional Service Contract #263-MI-216718 “Role of endocannabinoids in

the behavioral and central effects of cocaine” (PI, E.S. Onaivi) 2000--2000 WPU Intra-Mural Funds, Laboratory setup (PI, E.S. Onaivi) 1998--2001 Institute for Coffee Studies: (PI, P. Martin)

1995--2000 NHLBI K01 Award: “The role of the CNS in the cardiovascular effects of cocaine” (PI, E.S. Onaivi)

1995--1998 NIMH Supplemental award: “Psychopharmacology: Beta adrenoceptor regulation in brain” (PI, F. Sulser)

1995--1998 NSF Grant: “Regulation of neuronal differentiation by polyamines” (Co-PI, E. S. Onaivi)

1995--1998 NHLBI-Minority Institutional Training Award (PI, Townsel)

1995--1995 Meharry-Oak Ridge National Laboratory Project. “Analysis of mutant mice” (Co-PI,

E.S. Onaivi)

1994--1996 EPA-Minority Academic Institutions: Training Program in Pharmacology and Toxicology (PI, E.S. Onaivi)

1993--1993 NSF-MRCE Grant Award: “Neurobiology of bound dopamine transporter” PI, (E.S. Onaivi)

1993--1993 NSF-MRCE Seed Grant Award: “Regulation of membrane bound dopamine transporter” PI, (E.S. Onaivi)

1990--1993 US Army Research and Development Command. DMDD-17-88-Z-8023 to Pennington Biomedical Research Center (Investigator, E.S.Onaivi)

1990--1992 Stanley Foundation Research Award. National Alliance for the mentally ill.

Research award in schizophrenia

1991--1991 Syntex: “Analysis of Syntex anxiolytic compounds” (E.S.Onaivi) 1991--1991 Searle: “Analysis of Searle anxiolytic compounds” (E.S.Onaivi)

1990--1991 MRI Research Award: Visiting Research Scientist, Stanford University.

**Global Patent Filed and on Pause:** Liu QR, Onaivi ES inventor; WILLIAM PATERSON UNIVERSITY: United States., assignee. Floxed mouse line of cannabinoid receptor 2 (*Cnr2*) gene site-specific recombination as an animal model for medicinal marijuana development. USA 2017. Provisional Patent Application on Transgenic Mice #62/121,227, 3/12/2015.

# EDITORIAL WORK

**CHIEF…Editor**

*Advances in Drug and Alcohol Research 2021-*

# EDITORIAL BOARDS

Current Pharmaceutical Design

American Journal of Endocannabinoid Medicine Tropical Journal of Pharmaceutical Research Journal of Drug and Alcohol Research Cannabinoid Receptors – Drug Times

Pharmaceuticals Special issue: Medical marijuana – MDPI Special editor Frontiers in Molecular Neuroscience

# Memberships – Scientific Societies

* Society for Neuroscience (SFN)
* College on Problems of Drug Dependency (CPDD)
* International Behavioral Neuroscience Society (IBNS)
* Society for Experimental Biology and Medicine(SEBM)
* Curriculum on Undergraduate Education(CUR)
* International Drug Abuse Research Society (IDARS)
* International Cannabinoid Research Society (ICRS)
* International Behavioral and Neural Genetics Society(IBNS)
* International Brain Research Organization(IBRO)
* International Association for Cannabinoids as Medicine(IACM)

# REVIEWER (SELECTED)

JAMA

Journal of Neuroscience Research Physiology and Behavior

Pharmacology, Biochemistry and Behavior Life Sciences

American Journal of Medical Genetics Part B: Neuropsychiatric Genetics. Current Anesthesia and Critical Care

Journal of Neuroscience Research Experimental Brain Research Neuropsychopharmacology Archives of Medical Research

Israeli Science Foundation: Research Grant Review

Motor Neuron Disease Association: Research GrantReview Neuroscience letters

Libertas Academica Saudi Medical Journal

Behavioral Brain Research Dove Medical Press

Neuroscience and Biobehavioral Review Synapse

Biological Psychiatry

European Neuropsychopharmacology Journal of Toxicology

Brain Research Experimental Brain Research

British Journal of Pharmacology Cannabinoids

Pharmacology Biochemistry and Behavior Psychopharmacology

Cell Biology and toxicology Journal of Neural Transmission Science Alert

Israeli Science Foundation

Motor Neuron Disease Association Current Neuropharmacology Pharmaceuticals Neurotherapeutics

# TEACHING EXPERIENCE: COURSES TAUGHT AT WPUNJ

Course Coordinator: Applied Anatomy and Physiology, 2004-present

|  |  |
| --- | --- |
| Bio 599 | Pharmacology (Development of Course) |
| Bio 460 | Pharmacology (Undergraduate) |
| Bio 560 | Pharmacology (Graduate) |
| Bio 114 | Applied Anatomy and Physiology. |
| Bio 113 | General Anatomy and Physiology to nursing students. |
| Bio 120 | Human Biology |
| Bio 164 | General Biology II |
| Bio 248 | Behavioral component of Ecology Evolution and Behavior (EEB). |
| Bio 415 | Psychopharmacology |
| Bio 480 | Bioseminar |
| Bio 499 | Independent Study |
| Bio 536 | Neural Basis of Behavior (Undergraduate/Graduate) |
| Bio 599 | CEDL 399 (Undergraduate/Graduate) - Workshop on Drug Addiction. |
| Bio 702 | Independent Reading (Graduate) |

# TEACHING AND RESEARCH DURING FULBRIGHT SABBATICAL

**-Courses taught at Addis Ababa University 2013-2014**

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| --- | --- | --- |
|  | Pharma | 6672 Autacoids and Neuropharmacology |
|  | Pharma | Molecular Cell Biology |
|  | Pharma | Molecular Pharmacology |

**-Master’s Thesis Defense Examiner at Addis Ababa University 2013-2014**

|  |  |  |
| --- | --- | --- |
|  | Pharma | Ermias Mergias |
|  | Pharma | Faiz Mohammed |
|  | Pharma | Jemal Abdela |
|  | Pharma | Jibril Seid |
|  | Pharma | Netsanet Fekadu |

**-Public Lectures at Addis Ababa and Jimma Universities 2013-2014**

Endocannabinoids: The brain and body’s marijuana and beyond.

# Guest and Visiting Professors to my laboratory & Pharmacology Course

2010-2010 Dr. Shan zhi Gu, Xian University, China.

2010-present Dr. Hiroki Ishiguro. University of Yamanashi, Japan. 2014-present Dr. Qing-Rong Liu, NIDA-NIH, Baltimore, MD

2014-present Dr. Joseph Morgan

2012-Present Dr. Zhicheng Carl Lin, Harvard University, Boston, MA 2017 Dr. George Koob. NIAAA-NIH Director, Bethesda, MD 2019 May-June Dr. Nicola Simola. University of Cagliari, Italy.

# Pre-Doctoral Students completing part of their PhD projects in my laboratory

1. Alvaro Llorente-Berzal: European Research Scholar from Spain, completed part of his PhD research with me in 2008
2. Joao Carlos Escostteguy-Neto: Brazilian research scholar completed part of PhD research with me in 2013.
3. Berhanu Gibret. Addis Ababa University, Ethiopia. Research on Khat interaction with the endocannabinoid system in mouse models of CNS function, 2019.

# Supervision of Student Reading and Research at William Paterson University

1. Chiara Brandoni: Independent Study on interaction of rimonabant on withdrawal from cocaine after chronic cocaine treatment 2002.
2. Danielle Colas. Behavioral effects of capsaicin 2003.
3. David Niglo: Independent-Reading 2003.
4. Zoila Mora: Summer Research 2003
5. Alex Perchuk: Independent Study. Prenatal exposure to capsaicin, 2004.
6. Lester Myers: Summer Research 2004
7. Caroline Schmidt: Independent Reading spring 2004
8. Jocelyn Dexter: Independent Reading spring 2004
9. Sejal Patel: Independent Study summer 2004
10. Tiffany Alderson: Independent Reading summer 2004.
11. Shoma Dutta: Genetic Immunization (DNA vaccine). 2005.
12. Lindsey Teasenfitz: Independent Study fall, 2005
13. Gabriela Hrebrikova: Independent Research and assistant, 2005
14. Amer Moughrab: Independent Reading, fall 2005.
15. Josaih Adaelu: Graduate Independent Reading, 2005.
16. Paul Meozzi: Student Research Assistant, 2006.
17. David Macharia: Independent study project titled, “Behavioral Effects of CB2 Receptor antagonism in Mice under the Chronic Mild Stress Model of Depression”, 2006.
18. Orlando Carpio: Graduate Student research project titled, “The role of CB2 cannabinoid receptors in mice alcohol preference and food intake and in human alcoholism”, and 2006.
19. Angelica Alvarez: Student Assistant project titled, “The role of CB2 cannabinoid receptors in mice alcohol preference and food intake and in human alcoholism”, 2006.
20. Hock, E: Student research assistant project titled, “A role of CB2 cannabinoid receptors in depression and substance abuse”, 2006.
21. Joanne Hung: Student research assistant project titled, “ Neurobehavioral effects of CB2 cannabinoid receptor activation”, 2006
22. Ennid Gonzalez: Student research assistant project, titled “Modification of mouse behavior by CB2 cannabinoid receptor ligands”, 2007
23. Jennifer Lee: Student research assistant, project titled “Modification of mouse behavior by CB2 cannabinoid receptor ligands”, 2007.
24. Hale Atil: Student research assistant project, titled “Autism pilot project”, 2007.
25. Leizl Chua: Student research assistant project, titled “Autism pilot project”, 2007.
26. Michele Volaric: Graduate Independent Reading, 2007.
27. Elizabeth Njoroge: Graduate Independent Reading, 2007.
28. Tara Halpern: Student Research Assistant, Endocannabinoid system in Autism, 2008.
29. Mersiha Mehanovic: CB2 cannabinoid receptors and depression, 2008.
30. Evadney Brown: CB2 cannabinoid receptors and depression, 2008.
31. Jacqueline Pietri: CB2 cannabinoid receptors and depression, 2008.
32. Uma Mirza: Undergraduate Independent Reading, 2008.
33. Alvaro Llorente-Berzal: Research Scholar from Spain, completing part of his pre- doctoral research with me, 2008.
34. Maria Bell: Graduate Independent Reading, 2008.
35. Mridula Shukla: Graduate Independent Reading, 2008.
36. Steve Wang: Summer High School Research Assistant, Endocannabinoid and psychostimulant action in a mouse model of autism, 2009
37. Tara Halpern: Student Research Assistant, Endocannabinoid system in Autism,2009.
38. Monzer Fares El-Safdi: Graduate Independent Reading, 2009.
39. Sean Edward Santiago: Graduate Independent Reading, 2009.
40. Kayode Oluyemi: Graduate Independent Reading, 2010.
41. Apeksha Rao: Grad. Ind. Reading on therapeutic progress in Parkinson’s disease. 2010.
42. Nancy Abdallat: Grad. Ind. Reading on telomeres and ageing. 2010.
43. Sachin Thakkar: Grad. Ind. Reading on heat shock proteins and ageing process. 2010.
44. Swapnil Macwan: Grad. Ind. Reading on malaria vaccine: new hope for cure. 2010.
45. Carina Puello: Grad. Ind. Reading on clinical advances in diagnosis and prognosis of acute myeloid leukemia. 2011.
46. Dosuek Kim: Grad. Ind. Reading on possible therapeutic application of dopaminergic ligands in obesity. 2011
47. Fatima Bensabeur: Grad. Ind. Reading and Study on the interaction between alcohol and cannabinoids and Dopamine: Does it have a role in drug addiction? 2011.
48. Daniel Rizzolo: Grad. Ind. Reading on therapeutic effects of arsenic trioxide in acute myeloid leukemia. 2012.
49. Larissa Pamen: Grad. Ind. Reading and Study on cannabinoid receptor genes, gene structure, regulation and variation. 2012 -2013.
50. Chris Mat: Grad. Ind. Reading. Nanoparticles in detection and treatment of cancer in humans. 2012.

# Students Completing Research and Research Assistants in my lab 2014-2019

1. Ndeah Terry: Independent study on the “Molecular Basis for Chronic Mild Stress Induced Depression: the Role of CB2 cannabinoid receptor gene expression”.
2. Sneha Tammareddy: Independent study on the “Modification of acute stress inducedalcohol consumption by cannabinoid CB2 receptor”.
3. Jasmine Wood: Independent studyon “The Role of Cannabinoids in Anxiolysis in Autistic Phenotype Mice”.
4. Eugene Dennis: Research Assistant on the behavioral effects of CB2 cannabinoid receptor project.
5. Monika Chung: Research Assistant on the behavioral effects of CB2 cannabinoid receptor project.
6. Paola Velandria: Research Assistant on the behavioral effects of CB2 cannabinoid receptor project.
7. Kevin Penkoski: Research Assistant on the behavioral effects of CB2 cannabinoid receptor project.
8. Branden Sanabria: Research Assistant on the behavioral effects of CB2 cannabinoid receptor project.
9. Stephen Gross: Research Assistant on the behavioral effects of CB2 cannabinoid receptor project.
10. Tameh Rohani: Research Assistant. Work on neuro-immune cannabinoid receptor crosstalk

# Teaching Experience at Meharry Medical College (MMC)

* + Overview of CNS drugs to Medical, Dental and Graduate students:- Anxiolytic agents Behavioral Pharmacology

Neuroleptic agents, Antidepressants and Anti-manic agents Anti-parasitics I-III and drugs used in leprosy

* + Vitamins and Anti-microbial agents to medical technology students
	+ Drug Abuse Pharmacology to Medicalresidents
	+ Anxiolytic agents in clinical pharmacology to Dentalstudents
	+ **Course Co-coordinator, 1994 –1996:** Neuropsychopharmacology to Graduate students. My role: Lectured on serotonin, modern advances in psychopharmacology, summarizes course. Graded exams and presented report to Chairperson and Dean.

# Graduate Student Supervision at Meharry Medical College (MMC)

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| --- | --- | --- | --- |
| 1. | Cassandra Bishop Robinson | 2. | Shorye Payne |
| 3. | Deidra Atkins | 4. | Stephanie Talton |
| 5. | Karen McClendon | 6. | Carma D. Hodge. |

**Mentor to College/High School Students at MMC**

1. Tamra Gentry, 1995 Summer College Student
2. Ike Onwere, 1995 Summer NIH researchstudent
3. Carter Smith, 1996 Summer College Student
4. Jeff Smith, 1995 High School Student
5. Shan Duseja, 1994 High School Student

# Mentor to Post-Doctoral Fellows, Residents and other Visiting Professors at MMC

1. Dr. Amitabha Chakrabarti (1993-1999)
2. Dr. Saba Abaci (1998)
3. Dr. E. T. Gwebu: Professor on sabbatical and worked on cannabinoid receptor gene expression.
4. Dr. Ana Canseco Alba: Postdoc 2016-present. Analysis of mice with cell selective deletion of CB2 receptors from microglia and dopamine neurons.
5. Dr. Berhanu Kibret: 2020-present: Role of CB2 cannabinoid receptors in mouse models of CNS function. Molecular basis of behavioral changes.

# Continuing Education and Short Courses

* Second messenger systems. ASPET meeting in Montreal Canada, 1988
* Neurobiology of addictive disorders. Society for Neuroscience meeting. Phoenix, AZ, 1989
* Molecular endocrinology training course. Houston, TX, 1989
* Temple University certificate award of 2.0 continuing education units. 1991
* Spring series, Recombinant DNA course – A hands on course, 1993
* DNA Microarrays: Society for Neuroscience, Miami, FL, 1999.
* NIDA events on frontiers in addiction research at society for neursience meeting in Washington DC, USA, 2008.
* Emerging evidence for epigenomic changes in Human disease, NIH, Bethesda, 2009.

# Committees and other Special Assignments

1. Institutional Animal and Use Committee (IACUC) member at MMC, 1994-1996
2. MBRS grant advisory committee, 1994-1996
3. Neuroscience day symposium (1995), member and speaker
4. Cardiovascular Training grant: Co-PI and advisory committee member, 1994-1996
5. Faculty Welfare Committee (1995 – 1996)
6. Vanderbilt committee on Behavioral Genetics(1997)
7. Role model Scientist by Science Museum of Nashville, 1994
8. Symposium Organizer at IBNS meeting in Italy on Cannabinoids,2002.
9. Conducted Research and presentations to Graduate Students in Tsukuba, Japan 2005, 2006.
10. Member Program Committee IBNS, 2003-2006.
11. Chairman scientific sessions at ICRS and IACM meetings, 2005/2006.
12. Member CPDD minority representation committee, 2009
13. IDARS newsletter Editor, 2006-present.
14. Pharmaceuticals: Editorial Board Member andReviewer
15. Associate editor: Journal of drug and alcohol research.

# Committees and other Special Assignments at William Paterson University

1. Student Advisor: Average of about 25 students per semester, 2003-2017
2. Department of Biology Seminar Coordinator 2000-2006.
3. Course coordinator for Applied Anatomy and Physiology 2004-present.
4. Student and ad hoc biotechnology committee 2000-2003.
5. Pre-professional, Technician Review committee, Undergraduate curriculum, and Technology committee and Senate Athletic activities council committees. 2003-2005.
6. Faculty senate council, Graduate, 2004-2005 and 2016-present.
7. Member of search committee for Animal Physiologist/Behavioral Biologist position 2004, 2007.
8. Member Timely Degree Completion Initiatives (TDCI) Task Force on Pre-College Issues, 2007.
9. Member College of Science and Health Assessment Committee 2004-2006.
10. Member College of Science and Health Research Committee, 2008.
11. Member Nursing School search Committee 2008-present.
12. Member Biology Student Committee, 2007-2009.
13. Member Institutional Animal Care and Use Committee (IACUC), 2007-2011
14. Member Institutional Review Board, 2011-2013.
15. Developed Pharmacology Course, now offered every fall, 2005-present.
16. Formed an International Autism Collaborative Research Group, 2006-present.
17. Prepared Application for AALAC certification for use ofanimals.
18. Council Member Biology Department, 2009-2010.
19. Biology Department Assessment Committee Member, 2014-2015.
20. Graduate program committee member 2020 present.

# Invited Speaker and Presentations

* Behavioral and biochemical consequences of MPTP infusion into substantia nigra and caudate putamen of the rat brain, Florida A & M University, Tallahassee, 1990.
* The application of some behavioral and biochemical techniques to assess drug action in the brain; LSUMC, New Orleans (1990) and at Shreveport (1991), LA and at Southern University, Baton Rouge, 1990; and at Ohio Northern University, Ada,(1992)
* Potential application of 5-HT agents in schizophrenia; Stanford University Mental health Clinical Research Center. 1991
* A comparison of behavioral and [3H] BDZ binding in three rat strains. Morehouse School

of Medicine in Atlanta, GA, 1991

* Cellular and molecular biological approaches to further understand dopamine function in the CNS. University of Pennsylvania, Smell and Taste Center, Philadelphia, PA, 1991
* Cultural and b rai n research metho ds in A fric a. Int. s pea ker’ s bur e a u ( Bechtel International Center, Stanford University, for Gun High School Int. Festival, 1992
* Animal behavioral models for the study of anxiety. Synthex Inc. Palo Alto, 1992
* Predicting drugs with abuse potential using the two compartment black and white box, Synaptic Pharmaceutical Corporation, Paramus, NJ, 1992
* Animal behavioral models to study drug action in the brain. Visiting lecturer to the Department of Anesthesiology Grand Rounds, University of California, Davis, CA, 1992
* Are there subtypes of cannabinoid receptors in the brain? Kirksville College of Osteopatic Medicine, 1993.
* Molecular correlates of behavioral changes in assessing drug action in the central nervous system, Vanderbilt University, 1993.
* Neural Networks to predict neurobehavioral effects in the r odent model. Presentation to Tennessee State University and Meharry Medical College Collaborating group, 1994.
* Neurobiological basis of emotionality. Presented to organic chemistry,

biochemistry and psychology students and faculty at Oakwood College. April 26 and 27, 1994.

* Are there subtypes of marijuana receptors in the brain? Presented during the membrane biology research symposium sponsored by Meharry Center of Excellence in cell and molecular biology. May 9, 1994.
* Neurobiological bases of the action of psychostimulants in the hippocampus. Presented at the satellite meeting of the International society of Neurochem in Niigata, Japan. 1995.
* Aggression and hyperactivity following lesions of the raphe nuclei: Behavioral and neurochemical correlates. Presented at the1995 Neuroscience symposium on Violence and aggression-the neurochemical basis at Meharry Medical College. July 20-21, 1995.
* Molecular bases for neurobehavioral changes. Temple Universi t y Sc h ool of P h armacy. December 6, 1995.
* Animal models to study brain function. Elizabeth-City State University, NC. 2/8/96.
* Meharry representative on the 23rd annual symposium: Increasing Health career opportunities. A 16 Institutions Health Sciences consortium. Greensboro, NC,1996.
* Cannabinoid induced neurobehavioral alteration. Morehouse School of Medicine,1996.
* Recent advances in cannabinoid research. Presented to the Vanderbilt Addiction Medicine Rounds 1997.
* The use of genetically altered mice for neurobehavioral analysis. Presented at the Lawrence Livermore National laboratory, Livermore, CA, 1998.
* Cannabinoid receptor genetics and be havi or. Presented at the

International Cannabinoid Research Society in Montpellier, France, 1998.

* Cannabinoid receptor genetics and behavior. Presented at the University of Mississippi, Oxford, MS, 1999 and in 2008.
* Molecular genetic approach es in c a nn a bin oi d research. Presented to t he Molecular Neurobiology branch at NIDA intramural program in Baltimore, March, 2000.
* Progress in Cannabis Research. Presented at Columbia University’s division on substance abuse monthly seminar on 9/26/02.
* Ibogaine Research. Presented at Harlem NYC support for ibogaine and iboga access at the Dempsey center in NY on 11/16/2002.
* Cannabinoid Research Up date. Presented at the Psychiatry Department t reatment research center at UPENN on 01/27/2003.
* Cannabinoid Genomics. Presented at University of Buenos Aires on03/18/2003.
* Endocannabinoid hypothesis of substance abuse. Presented at IACM meeting in Leiden, Netherlands, 2005.
* Tsukuba University Japan: Lectured on the neurobiology ofaddiction, 2006.
* Xia University in China: Lectured on Discovery of CB2 receptors in the brain and endocannabinoid hypothesis of substance abuse, 2006.
* Howard University Washington DC: Lectured on Discovery of CB2 receptors in the brain and endocannabinoid hypothesis of substance abuse, 2007.
* Nathan Kline Institute, New York. Presentation on Discovery of Brain CB2 cannabinoid receptors.
* Neuronal CB2 cannabinoid receptors: Beyond neuro-immunocannabinoid activity. Oral presentation at the International Behavioral Neuroscience Society, St. Thomas.

 Caribbean, 2008.

* Targeting brain neuronal CB2 cannabinoid receptors in drug abuse and depression. Oral presentation at International Cannabinoid Research Society meeting. Cyprus, 2008.
* Antidepressant-like behavioral effects of CB2 cannabinoid ligands in the mouse forced swim test. Poster presentation. ICRS, Cyprus.
* Brain c cannabinoid C B2 receptor and schizophrenia. Poster presentation. Society for Neuroscience meeting, Washington DC. 2008.
* CB2 Cannabinoid Receptors: Identification of novel human promoter elements, isoforms and tissue expression patterns. Poster presentation. Society for Neuroscience meeting, Washington DC. 2008.
* Targeting brain CB2 cannabinoid receptors in depression: From mice to human subjects. Poster presentation. Society for Neuroscience meeting, Washington DC. 2008.
* Behavioral effects of CB2 cannabinoid receptor activation and its influence on food and alcohol consumption in mice. Oral Presentation. WPUNJ research day. 2008.
* Guest Speaker: Drexel University College of Medicine, Philadelphia: Gender differences in drug effects, 2008.
* Targeting brain neuronal CB2 cannabinoid receptors in drug abuse and depression. International cannabinoid research society, Cyprus, 2008.
* Genetic basis of marijuana use: William Paterson University Research Symposium.
* ICRS in Chicago, USA; IDARS, in Seoul, S. Korea, 2009.
* Genetic basis of marijuana use, Fairleigh Dickinson University, NJ, 2010.

# RECENT PRESENTATIONS

* Symposium presentation titled “Neuro-immune crosstalk and CB2Rs in marijuana-cannabinoid medicine” in Puerto Vallarta, Mexico 2021.
* Co-Chairman of the Neurobiology of endocannabinoid system in psychiatric disorders, symposium at the AsCNP conference in Fukuoka, Japan October 10-14th, 2019.
* Co-Chairman of the Marijuana/Cannabinoids session at the 7th biennial meeting of International Drug Abuse Research Society in Casablanca, Morocco; September 2-6, 2019.
* Symposium organizer and Co-Chairman at IBNS conference in Florida 2018.

Hiroki Ishiguro, M.D., Ph.D. (Japan) and Emmanuel S. Onaivi, Ph.D. (USA). Advances in the neurobiology of cannabinoid type 2 receptors.

* Branden Sanabria, Ana Canseco-Alba, Qing-Rong Liu, Hiroki Ishiguro Emmanuel S. Onaivi. Microglial and dopaminergic-neuron-specific deletion of CB2 cannabinoid receptors in stress induced neuroinflammation and behavior. Presented at IBNS conference in Florida USA 2018.
* Zamora Maria F, Canseco-Alba Ana, Liu Qing-Rong, Onaivi Emmanuel S, Bierbower Sonya M. The role of cannabinoid 2 receptor in modulating microglia activation after a traumatic brain injury. Presented at IBNS conference in Florida USA 2018.
* Hiroki Ishiguro, Kouichi Tabata, Chiaki Mochizuki, and Emmanuel S. Onaivi. Environmental stressors induce psychosis based on genetic variation of Cannabinoid CB2 Receptors. Presented at IBNS conference in Florida USA 2018.
* Emmanuel S. Onaivi, Ana Canseco-Alba, Qing-Rong Liu, Hiroki Ishiguro. Cannabinoid Receptor Genetics: From Mice to Human Subjects. Presented at IBNS conference in Florida USA 2018.
* Bernadin Rollanda, Canseco-Alba Ana, Onaivi Emmanuel S. The role of cannabinoid CB2 receptors in cognitive function of DAT-Cnr2 conditional knockout mice. Presented at WPUNJ symposium in Wayne, NJ. 2018.
* Hammouda Mariam, Canseco Ana, Schanz Norman, Onaivi Emmanuel S The impact of selective deletion of cannabinoid CB2 receptors in the neurodevelopment of DAT-Cnr2 and Cx3cr1-Cnr2 transgenic mice. Presented at WPUNJ symposium in Wayne, NJ. 2018.
* Tameh Rohani, Canseco-Alba Ana, Schanz Norman, Liu Qing-Rong, Onaivi Emmanuel S. Characterizing the effects of deletion of CB2Rs in dopamine neurons in a novel mouse knockout strain. Presented at WPUNJ symposium in Wayne, NJ. 2018.
* Canseco A, Zhang H, Gardner EL, XI ZX, Ishiguro H, Liu QR, Onaivi ES. Cannabinoid typereceptors in brain dopamine neurons modulates anxiety-like and psychostimulant behaviors in floxed DAT-*Cnr*2 mouse model. Presented at IDARS meeting in Croatia, 2017.
* Onaivi ES, Canseco A, Zhang HY, Chung M, Dennis E, Sanabria B, Schanz N, Ishiguro H, Lin Z, Sgro S, Leonard CM, Gardner EL, Egan JM, Xi ZX, Liu QR. Behavioral modifications following deletion of type 2 cannabinoid receptors in dopamine neurons. Presented at IDARS meeting in Croatia in 2017.
* Onaivi ES. Neurobiology of compulsive behaviors: Translational tools in addiction. Presented at the International Neurotoxicology Association joint meeting with the Neurotoxicity Society in Florianapolis, Brazil 2017.
* Canseco A, Dennis E, Chung M, Sanabria B, Schanz N, Ishiguro H, Liu QR, Onaivi ES. Role of cannabinoid type 2 receptors in brain dopamine neurons in the rewarding effects of psychostimulants, alcohol and cannabinoids in DAT-Cnr2 conditional knockout mice. Presented at the society for neuroscience meeting in Washington DC in 2017.
* Ishiguro H, Tabata K, Mochizuki C, Onaivi ES. Environmental stressors and psychiatric disorders based on genetic dysfunction of cannabinoid CB2 receptor. Presented at the society for neuroscience meeting in Washington DC in 2017.
* Onaivi ES, Canseco A, Zhang HY, Chung M, Dennis E, Sanabria B, Schanz N, Ishiguro H, Lin Z, Sgro S, Leonard CM, Gardner EL, Egan JM, Xi ZX, Liu QR. Behavioral modifications following deletion of type 2 cannabinoid receptors in dopamine neurons. Presented at the society for neuroscience meeting in Washington DC in 2017.
* Onaivi ES, Canseco A, Liu QR, Ishiguro H. Cannabinoid receptor genetics: From mice to Human subjects. Presented at the World Congress of Biological Psychiatry in Copenhagen, 2017.
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