Welcome to the Translational Neuroscience Program - TNP

The vision of the TNP program at WSU is to inspire a new generation of biomedical investigators that is highly trained in interdisciplinary science and focused on understanding basic neural processes and function as well as improving the health and care of individuals affected by psychiatric and neurological disorders, or injuries in the nervous system through an understanding of neurobiological mechanisms. The program offers access to world-class facilities for both animal and human research enabling innovative technologies in neuroimaging, transgenic and knockout models of neurological conditions, neuropharmacological treatment interventions, brain stimulation, in brain network and computational modeling.

Our mission begins with a program that is inherently interdisciplinary with TNP faculty members specialized in basic, translational and clinical neuroscience. Students from diverse undergraduate backgrounds are exposed to a comprehensive, extensive and integrated bio-behavioral didactic curriculum. This includes courses in basic cellular, molecular and systems neurobiology, behavior and cognition, and neuroimaging. To earn a Ph.D. from the TNP, students are required to demonstrate proficiency in both conceptual and technical facets of modern biomedical research and to perform meritorious original neuroscience research on a significant and clinically relevant problem. The TNP program is fully committed to training basic and clinical neuroscientists who drive innovations to impact public health.

Specifically, the overall objectives of the TNP program include:

- Gain knowledge and understanding of basic sciences related to the neurobiology of the nervous system, brain disorders, diseases and injuries, fundamentals of neuroimaging techniques, and statistical approaches to modeling research data; all through a diverse didactic curriculum.
- Develop skills in oral and written communication, including writing an NIH predoctoral fellowship grant application, critiquing and challenging basic and clinical research findings through journal club and seminar participation, and creating and delivering oral and poster presentations of their research (e.g., at local, national and international scientific meetings, and TNP seminars).
- Design, develop and write a dissertation research prospectus with testable hypotheses and a rigorous experimental approach with guidance from an advisor and an advisory committee, conduct graduate-level research and exhibit advanced knowledge and expertise within their chosen research interest.

This handbook is a supplemental guide to the Graduate School student handbook for students who have elected to pursue their Ph.D. studies in the TNP. It is intended to reflect the spirit of our graduate training program and is not a legal document. That is, the TNP program cannot operate with a one-size fit-for-all approach because each student brings a level of uniqueness in his/her training and training environment. It may prove necessary to alter various requirements and/or procedures in response to future situations (e.g., changes in the polices of WSU Graduate School). The TNP steering committee will review the handbook periodically, and student input is welcomed.

A. Overview of training timeline and milestones

Academic Y1-2:	Required coursework.
Academic Y1-2:	Engage in research to develop the dissertation research project by conducting research rotations during Fall and Winter semesters, as well as during the summer.
Academic Y1:	Complete and submit the Plan of Work to the Graduate School for approval. An approved Plan of Work is a requirement for Ph.D. candidacy. Once a student has an approved Plan of Work on file with the Graduate School, any further changes are approved by the TNP Graduate Officer.
Academic Y1:	Complete the WSU Individual Development Plan (IDP), which provides a structure to identify concrete steps toward long-term goals and a framework for constructive conversation between the student and advisor(s). The WSU IDP document must be submitted annually. Additionally, students must complete annually the TNP Individual Development Plan (TNP IDP), which includes the Start of Year evaluation form due September 15th and the End of Year review form due May 15th.
Academic Y2:	Identify an advisor or co-advisors from the TNP faculty membership for the dissertation research project by mid-Academic Year 2. With guidance from the advisor(s) and the TNP Graduate Officer, students must identify members of the dissertation committee, which must be pre-approved by the TNP Graduate Director (see TNP form). The dissertation committee is composed of four (or five) faculty members: one advisor (or two co-advisors), one member from the TNP Steering committee, one (or two) member(s) with expertise relevant to the dissertation and one member with external expertise. If there are two co-advisors, then the committee must include 5 faculty members. The advisor (or one of the co-advisors) must have Graduate Faculty Status in the TNP, which is approved by the Graduate School.
Academic Y2:	Once a dissertation committee has been established, all students must present their dissertation research proposal and the plan of action for the NIH predoctoral fellowship application to the committee. The goal during Academic Y2 is to complete a draft of the Specific Aim page for the NIH predoctoral fellowship application and hold a first meeting with the committee for an oral presentation of the scope of the dissertation research project. Students MUST have a committee meeting prior to submitting the NIH F30/31 predoctoral fellowship application to present the application for review.

Academic Y3:	As part of the written component requirement of the Qualifying Examination for Ph.D. students, or the requirement for M.D./Ph.D. students, all students must write and submit an NIH F30/F31 predoctoral fellowship application (U.S. citizens only). Annual submission deadlines are, December 8th, April 8th and August 8th. The expectation is for students to submit their predoctoral fellowship application for the December 8th deadline in Academic Year 3. For non-U.S. citizens or U.S. residents, the predoctoral fellowship application will be submitted to the TNP Steering Committee for assessment by an external reviewer that is selected by the Steering committee.
Academic Y3:	By the end of the Fall semester or beginning of the Winter semester, all students must pass their Qualifying Exam, which is a requirement for Ph.D. candidacy. See below for more information on the Qualifying Examination process. The Recommendation for Candidacy Status form must be submitted to the Graduate School for the student to advance to candidacy. If a student has completed all 60 credits of coursework and is not a candidate, PYC 9990 can be taken for up to 12 credits.
Academic Y3:	Following the Qualifying Examination, all students must submit a dissertation prospectus document, approved by the dissertation committee, to the Graduate School.
Academic Y3 – Onward:	A minimum of four consecutive academic-year semesters of registration as a Ph.D. candidate (PYC 9991, 9992, 9993, 9994) are required for completion of dissertation research. Students will not be given permission to register for PYC 9991 until they have had at least one committee meeting and a date scheduled for the Qualifying Exam. Students should have 1-2 meetings with their dissertation committee each year, with the frequency of these meetings increasing as they approach the dissertation preparation and defense.
Academic Y4 – Onward:	Dissertation preparation and defense. With a minimum of two weeks prior to the Defense date, the dissertation thesis must be checked for plagiarism by the advisor and TNP form - Ph.D. Dissertation Uni-Check Certification – must be completed and signed, as well as submit the following forms to the Graduate School: Dissertation title and list of previous degrees, Final Report, Electronic Thesis and Dissertation Permissions Form and Conflict of Interest. All students must present their dissertation in a public lecture and defend their dissertation to the committee. The results of the defense are submitted to the Graduate School via the Defense Final Report form.

The average time of completion of degree requirements for a TNP student is approximately 4.8 years. According to the Graduate School policy, the maximum time-to-degree is seven years. Under certain circumstances, an extension beyond seven years can be requested with a maximum time-to-degree of 12 years.

B. Course Requirements

All students in the TNP program are required to complete a minimum of 90 credits beyond their baccalaureate degree, which includes a minimum of 60 credits in coursework and 30 credits in dissertation research and preparation (PYC 9991, 9992, 9993, 9994). The typical number of credits in a Plan of Work for a TNP student ranges from 93-96 credits.

All students in the TNP program are required to maintain at least a 3.0 grade point average (GPA) for all coursework. A maximum of one course for which a 'C' grade was earned may be applied toward graduation requirements, provided a 3.0 average is maintained. In addition, a maximum of 2 courses for which a 'C' or lower grade was received may be repeated with approval from the Advisor and Graduate Officer.

Students are expected to complete at least three lab research rotations - course PYC 7996: Research Problems - within the first two years. Each rotation represents 3 contact/credit hours, totaling 90-120 hours/semester. Additionally, one clinical rotation, PYC 7998 - Clinical Neuroscience Rotation, must be completed during the training, which is typically taken after the passing of the qualifying exam.

The required coursework for all TNP students includes the following:

	Course Option(s)	Course Description	Credits
Responsible Conduct of Research	GS 0900	Essential Research Practices: Responsible Conduct of Research	0
Cell and Molecular Biology	IBS 7015	Interdisciplinary Cell and Molecular Biology	6
Neurobiology	PYC 7010	Neurobiology I	3
Neuroanatomy (Select one)	PSY 8060 ANA 7130	Functional Neuroanatomy Neuroanatomy	4 4
Neuroimaging	PYC 7140	Fundamentals of Neuroimaging	3
Disorders	PYC 7150	Fundamentals of Neuropsychiatric Disorders	3
Statistics - one introductory and one advanced course in statistics – note: a course override by the instructor will be required.	PSY 7150 PSY 8150	Quantitative Methods in Psychology I Applied Multivariate Analysis in Psychology (prerequisite PSY 7150)	4 4
Clinical Experience	PYC 7998	Clinical Neuroscience Rotation	3
Lab Experience	PYC 7996	Research Problems - laboratory rotations Minimum 9 credits.	3
Research Seminars	PYC 7890	Lectures/Seminars on Neuroscience Research Minimum 6 credits (4 for M.D./Ph.D. students) and maximum 8 credits.	1

Research Experience	PYC 7990	Directed Study Maximum 10 credits.	1-6
Dissertation Credits	PYC 9990	Pre-Doctoral Candidacy Research Available, if needed. Maximum 10 credits.	1-8
	PYC 9991	Dissertation Research	7.5
	PYC 9992	Dissertation Research	7.5
	PYC 9993	Dissertation Research	7.5
	PYC 9994	Dissertation Research	7.5
	PYC 9995	Dissertation Maintenance Research	0

The Directed Study course (PYC 7990) is intended to provide guided instruction between instructor and student with identified outcome measures. This mechanism can be used to learn a new technique or delve deeper into a thesis-related concept. A TNP Directed Study form must be signed and approved by the instructor and the TNP Graduate Officer.

Advanced Topic courses encompass neuroscience principles and methods, and their applications to nervous system disorders. These include any graduate level non-TNP required core courses. Minimum of 9 credits. Possible courses include, but are not limited to:

Course Options	**Course Description**	**Credits**
BME 7720	MR Imaging of Neurovascular Disease	3
IBS 7140	Foundations of Computational Biology	3
PSY 7340	Neuropathology and Behavior	3
PSY 8065	Neurophysiology and Neural Plasticity	3
PSY 8170	Structural Equation Modeling (prerequisite PSY 7160)	3
PSY 7160	Psychometrics and Factor Analysis	3
PYC 7515	Advanced Topics: Imaging, Neurodevelopment and Psychiatric Disorders	3
PYC 7500	Advanced Topics; Formal course with syllabus and well-defined outcome measures generated by an instructor(s) with potential input by students.	3

A maximum of 10 Cr. can be taken per Fall or Winter semester, with an optional 1-2 Cr. in the Spring/Summer semester.

As a graduate program with research as the focus of training, it is expected that all students engage in research with an advisor during the Spring/Summer semester. This is viewed as protected time to prepare and conduct dissertation research, or work on the predoctoral fellowship grant application.

Students are required to seek advice from the Graduate Officer, on his/her course selection. All course work must be completed according to requirements of the WSU Graduate School. The WSU Graduate Bulletin includes a complete listing and description of graduate courses offered at WSU.

Typical examples of a Plan of Work include the following:

Year 1 - Fall: 10 credits
Interdisciplinary Cell and Molecular Biology - IBS 7015 (6 Cr.)
Research Seminar - PYC 7890 (1 Cr.)

Research Problems - PYC 7996 (3 Cr.)

Year 1 - Winter: 10 credits
Fundamentals of Neuroimaging - PYC 7140 (3 Cr.)
Research Problems - PYC 7996 (3 Cr.)
Neurobiology I - PYC 7010 (3 Cr.)
Research Seminar - PYC 7890 (1 Cr.)

Year 2 - Fall: 10 credits
Functional Neuroanatomy - PSY 8060 (4 Cr.)
Quantitative Methods in Psychology I - PSY 7150 (4 Cr.)
Research seminar - PYC 7890 (1 Cr.)

Year 2 - Winter: 10 credits
Applied Multivariate Analysis in Psychology - PSY 8150 (4 Cr.)
Research Problems - PYC 7996(3 Cr.)
Directed Study- PYC 7990 (2 Cr.)
Research seminar - PYC 7890 (1 Cr.)

C. Qualifying Examination and Ph.D. Candidacy

The Qualifying Examination determines whether the student has an adequate command of knowledge in the field of study and can organize, apply, and convey that knowledge. The examination covers the applicant's major and minor areas. The student must have an approved Plan of Work on file with the Graduate School and must have had at least one thesis committee meeting before taking the Qualifying Examination. Successful completion of the examination is one of the requirements for attaining Ph.D. candidacy.

The Qualifying Examination Committee, which, in most cases, is the dissertation committee, is composed of four (or five) faculty members that includes the advisor, one member from the TNP Steering committee, one (or two) member(s) with expertise relevant to the dissertation and one member with outside expertise.

The Qualifying Examination consists of a written AND an oral examination.

Written Qualifying Examination

The written component requirement of the Qualifying Examination for Ph.D. TNP students is the NIH F30/F31 predoctoral fellowship application document. For M.D./Ph.D. TNP students, the written requirement is satisfied by taking the USMLE Step I examination prior to entering the Ph.D. program. See supplement attachment for a “Checklist for NRSA Predoctoral (F30/F31) Fellowship Applications”.

The dissertation prospectus proposal cannot be used to satisfy the written qualifying examination requirement. Coursework cannot be counted towards the written exam.

Oral Examination Requirement

An oral examination is required of all Ph.D. students, which includes the presentation of the prospectus (dissertation research project). That is, the student orally presents the dissertation research project and answers questions posed by the student's examination committee.

If the student does not successfully complete the oral examination at its first administration, the examining committee may recommend that the student repeat the examination. The second examination may not be held until at least four months have passed but must be held within one calendar year following the first examination. The same examining committee must preside over both examinations. The second oral examination will be considered final.

Candidacy Requirements

Attainment of degree candidacy is a major milestone in the Ph.D. process. The requirements for advancement from Ph.D. applicant to degree candidate are as follows:

- Approval of the Plan of Work by the Graduate School
- Completion of at least 50 credit hours of didactic coursework required on the Plan of Work
- Satisfactory completion of the Qualifying Exam(s)*
- Establishment of the dissertation advisory committee — its membership may change until the time the prospectus is submitted.

**If the Oral Examination is part of the final Qualifying Examination, it must be completed within 60 days of the written exam.*

**The dissertation prospectus cannot be used to satisfy the written Qualifying Examination requirement.*

The Recommendation for Ph.D. Candidacy Status form is submitted to the Graduate School, and when completion of all requirements has been verified, the Graduate School will advance the applicant to Ph.D. candidacy.

D. Preparation of the Dissertation Thesis and for Thesis Defense

A helpful guide on the layout and format of the dissertation thesis can be downloaded from the Graduate School website using this link. Published material with student as a first- or co-author in discipline appropriate refereed journals may be incorporated into the dissertation after approval by the student's dissertation committee. For publications included in the dissertation, the Ph.D. candidate must be the principal author or have made the major contribution to the published work. In cases of co-authored papers, the text of the dissertation, most likely in the summary and conclusions, must make clear to the reader the original contributions of the author. In addition, when a paper is co-authored by those in addition to the Ph.D. candidate and the advisor, it is recommended that approval be given by the other authors for inclusion of the published materials. Students must reformat a published article for incorporation within the body of the dissertation thesis to ensure continued flow of the text. Lastly, students should be advised that incorporation of material published elsewhere require copyright permission from the copyright holder. See the Format Guidelines document for more details.

Meetings between student and dissertation committee must occur at least annually or when deemed necessary. As the student progresses towards defense of the dissertation, this frequency should increase to twice annually. The student must reach an agreement with the thesis committee as when to shift focus to dissertation writing and on the outline of the dissertation thesis.

E. TNP Individual Development Plan

Students are required to complete a TNP Individual Development Plan (TNP IDP) bi-annually. This is in addition to the WSU IDP required by the Graduate School. A copy of an updated CV (following the WSU School of Medicine

format) and biosketch (following the NIH format) is required with submission of the TNP IDP. Progress will be assessed by the TNP Steering Committee.

The TNP IDP is a tool useful for developing skills in self-evaluation and goal setting. Responses to the worksheet are used for reporting progress in degree training, research, and professional development. The TNP IDP worksheet has been specifically tailored for the TNP to support student success in meeting specific program milestones and professional career goals. This document has sections for each year of training. You can copy forward and edit responses from previous years as applicable and responses in this document can be directly copied into the WSU IDP for efficiency.

Completion of the annual worksheet has two phases:

1. Start of Year (due by September 15th): Self-evaluation and goal setting. All sections of this worksheet are used at the start of the academic year, except where otherwise noted.
2. End of Year (due by May 15th): Cataloging accomplishments and annual review reporting. Returning to your goals set at the start of the year, there are specific "End of Year" portions of the worksheet. This information is used for the annual review reporting for TNP and the Graduate School.

F. Additional Guidelines and Policies

Seminar Series

Students are required to attend the TNP seminar series. Each student will have the opportunity to present a seminar on a topic related to their research topics, at least once per year.

Travel Award

Upon matriculation in the TNP, all TNP students are given a Dr. Robert J. Bernucci Travel Award of $2,000 that can be used at any time during the training to attend and present an abstract as first author at national or international scientific meetings. These funds cannot be used for research-related expenses or as a stipend supplement.

Workload and Vacation

The official policy from the Graduate School is that students with a GRA, which applies to all TNP students, do not accrue vacation time. The TNP program does not enforced this policy, but we want to ensure that there is no abuse of excessive time away from your training. Therefore, all students must receive prior approval for any "vacation time" in writing by their advisor (or the Graduate Officer, if advisor has not been identified). This implies that the advisor has the final say in approving the time away from your training.

Classroom Attendance

Regular attendance is expected of all students in every class. Students who anticipate absences or who are unable to attend classes should inform their instructor(s) before class (or immediately following the absence) to explain their failure to attend. Excessive absence, with or without explanation, may result in failure for the course or in a reduced grade.

Whenever attendance forms a basis for a portion or all of a course grade, students must be provided with explicit written information concerning that fact during the first week of classes. Such information shall be

specific regarding the penalty incurred for each absence and the means, if any, to compensate for the absence. It should be recognized that there may be certain situations where the students may not be permitted to make up the absence(s). This policy shall be applicable to all courses within the University, regardless of setting. See the Wayne State University Graduate Bulletin for further information.

Student Disability Services

If you have a documented disability that requires accommodations, you will need to register with Student Disability Services for coordination of your academic accommodations. Please visit https://studentdisability.wayne.edu to register your condition. Once you have accommodations in place, please inform your instructor. Student Disability Services' mission is to assist the University in creating an accessible community where students with disabilities have an equal opportunity to fully participate in their educational experience at WSU. Student Disability Services supports students with a variety of conditions, such as mental health disorders, learning disabilities, chronic health conditions, etc.

Counseling and Psychological Services (CAPS)

It is quite common for college students to experience mental health challenges, such as stress, anxiety, and depression, that interfere with academic performance and negatively impact daily life. Help is available for any currently enrolled WSU student who is struggling with a mental health difficulty. Go to https://caps.wayne.edu for information on the services offered and how to access them. Other options, for students and non-students, include the Mental Health and Wellness Clinic at the College of Education (https://education.wayne.edu/mental-health-and-wellness-clinic). Services at all these clinics are free and confidential. Remember that getting help, before stress reaches a crisis point, is a smart and courageous thing to do – for yourself, and for those you care about. CAPS provides afterhours/weekend crisis support: students living on campus can call (313) 577-2277, and all others, call (313) 577-9982. In a life-threatening emergency, call the WSU Police at 313-577-2222.

G. Professionalism and Student of Conduct

Academic Misconduct – Plagiarism and Cheating

Academic misconduct is any activity that tends to compromise the academic integrity of the institution or undermine the education process. Examples of academic misconduct include:

- **Plagiarism**: To take and use another's words or ideas as your own without appropriate referencing or citation.
- **Cheating**: Intentionally using or attempting to use or intentionally providing unauthorized materials, information, or assistance in any academic exercise. This includes copying from another student's test paper, allowing another student to copy from your test, using unauthorized material during an exam and submitting a term paper for a current class that has been submitted in a past class without appropriate permission.
- **Fabrication**: Intentional or unauthorized falsification or invention of any information or citation, such as knowingly attributing citations to the wrong source or listing a fake reference in the paper or bibliography.
- **Other**: Selling, buying or stealing all or part of a test or term paper, unauthorized use of resources, enlisting in the assistance of a substitute when taking exams, destroying another's work, threatening or

exploiting students or instructors, or any other violation of course rules as contained in the course syllabus or other written information.

Such activity may result in failure of a specific assignment, an entire course, or, if flagrant, dismissal from Wayne State University.

Our Values

While our vision and mission show where we want to go, our values guide us on the way. They cut across organizational boundaries, bind us culturally, and permeate our strategic and tactical initiatives. They are the defining traits of the Wayne State community.

- **Collaboration**: When we work together, drawing upon various talents and perspectives, we achieve better results.
- **Integrity**: We keep our word, live up to our commitments and are accountable to ourselves and each other.
- **Innovation**: We are unafraid to try new things and learn by both failure and success.
- **Excellence**: We strive for the highest quality outcomes in everything we do.
- **Diversity and Inclusion**: We value all people and understand that their unique experiences, talents and perspectives make us a stronger organization and better people.

In sync with Wayne State University, the TNP program is fully committed to a policy of non-discrimination and equal opportunity in all its operations, admission, research and training opportunities, and program related special events and activities.

Student Code of Conduct

The mission of the School's Code of Conduct ("Code") is to promote the growth of ethically responsible students and future scientists through adherence to the highest standards of academic integrity and overall ethical conduct, to develop a sense of individual responsibility on the part of each member of the community to participate actively in maintaining such standards, to foster an environment of honor and trust within the WSU community, and to engender respect for the ethical standards of graduate students.

While representing themselves as a member of the WSU community, TNP students will maintain the highest standards of honesty and integrity. The student will strive for these standards in their representations, academic pursuits, and respect for the property and individual rights of others; will uphold the specific principles described in the Code; and will actively support the Code.

TNP Program: Student Alumni

2013 - June **Eric Brown, M.D./Ph.D.**
BS in Electrical Engineering – University of Michigan
"Multi-modality assessment of language function"
Advisor: Eishi Asano, MD – Pediatrics and Neurology

2015 – February **Brianne Mohl, Ph.D.**
BS in Natural Sciences – Colorado State University
"Neural alterations influencing skilled reading in ADHD: a task-based fMRI study"
Advisor: Jeffrey Stanley, Ph.D. – Psychiatry and Behavioral Neurosciences

2015 – June **Dhruman Goradia, Ph.D.**
BE in Instrumentation Engineering – University of Mumbai, India
"Evidence of distinctive structural alterations that differentiate ADHD boys with and without a comorbid reading disability"
Advisor: Jeffrey Stanley, Ph.D. – Psychiatry and Behavioral Neurosciences

2016 - March **Hilary Marusak, Ph.D.**
BA in Biology and Psychology – Kalamazoo College
"Childhood trauma and emotion processing neurocircuitry"
Advisor: Moriah Thomason, Ph.D. – Pediatrics

2016 - March **Denise Briggs, Ph.D.**
BS in Psychology and Neuroscience – University of Michigan
"Cognitive, psychiatric, and neuropathological manifestations of repetitive mild traumatic brain injury"
Advisor: Donald Kuhn, Ph.D. – Psychiatry and Behavioral Neurosciences

2016 - June **Helen Wu, M.D./Ph.D.**
BS in Biomedical Engineering – University of Michigan
"Identification of metabolite biomarkers in epilepsy using ^{1}H MRS"
Advisors: Jeffrey Stanley, Ph.D. – Psychiatry and Behavioral Neurosciences; Jeffrey Loeb, Ph.D. - Neurology

2017 - May **Muzamil Arshad, M.D./Ph.D.**
BS in Physics – Benedictine University
"Change in processing speed and its associations with cerebral white matter microstructure"
Advisors: Naftali Raz, Ph.D. – Psychology; Jeffrey Stanley, Ph.D. – Psychiatry and Behavioral Neurosciences

2017 - May **Erik Woodcock, Ph.D.**
BS in Psychology – University of Washington (Seattle)
"Neuropharmacological investigation of stress and nicotine self-administration among current cigarette smokers"
Advisor: Mark Greenwald, Ph.D. – Psychiatry and Behavioral Neurosciences

2018 - March **Michael Lisieski, M.D./Ph.D.**
BS in Pharmacology and Toxicology; BA in Psychology – University of Buffalo
"The effects of cocaine exposure on hyperactivity, susceptibility to traumatic stress, and locus coeruleus function in rats"
Advisor: Shane Perrine, Ph.D. – Psychiatry and Behavioral Neurosciences

2018 - March **Andrew Neff, Ph.D.**
BA in Political Science – Michigan State University
"Nutrition, the gut microbiome, and psychology: a novel method to evaluate the gut microbiome from stool, and the impact of resistant starch on the gut microbiome, metabolism, and psychology"
Advisor: Paul Burghardt, Ph.D. – Nutrition and Food Science

2019 - May **Natalie Wiseman, M.D./Ph.D.**
BS in Biology – Bowling Green State University
"Assessing metabolic differences following mild traumatic brain injury and their predictive value for patients' outcomes"
Advisors: Zhifeng Kou, Ph.D. – Radiology & Biomedical Engineering; Alana Conti, Ph.D. – Psychiatry and Behavioral Neurosciences

2020 - July **Chaitali Anand, Ph.D.**
BS in Microbiology - University of Pune, Maharashtra, India
"Age differences in hippocampal glutamate modulation during associative learning and memory: A proton functional magnetic resonance spectroscopy (^{1}H fMRS) study"
Advisors: Naftali Raz, Ph.D. – Psychology; Jeffrey Stanley, Ph.D. – Psychiatry and Behavioral Neurosciences

2020 - October **Wafaa Sweidan, Ph.D.**
BS in Biology – Lebanese American University, Lebanon
"Investigating Gray and White Matter Microstructure in Parkinson Disease Patients using Diffusion Magnetic Resonance Imaging"
Advisors: Edwin George, M.D., Ph.D. – Neurology; Jeffrey Stanley, Ph.D. – Psychiatry and Behavioral Neurosciences

2021 - February **Brian Silverstein, Ph.D.**
BA in Philosophy - University of Toronto, Canada
"Dynamic Tractography"
Advisor: Eishi Asano, Ph.D. – Pediatrics

2022 - February **James Matchynski, M.D./Ph.D.**
BS in Biochemistry - University Michigan
"Development and Implementation of a Novel Method to Quantify FOS-Related Neuronal Activity *in vivo* Using High-Resolution Photoacoustic Imaging"
Advisors: Alana Conti, Ph.D. – Psychiatry and Behavioral Neurosciences; Shane Perrine, Ph.D. – Psychiatry and Behavioral Neurosciences

2022 - February **Nolan O'Hara, M.D./Ph.D.**
BS in Neuroscience - University of Michigan
"Propagation of Subdural Signals in Neurosurgical Patients with Epileptic Spasms"
Advisor: Justin Jeong, Ph.D. – Pediatrics

2022 - March **Lana Ruvolo Grasser, Ph.D.**
BS in Neuroscience – University of Michigan
"Dancing the Storm: Neurobiological Correlates of Trauma-Related Psychopathology in Youth Resettled as Refugees, and the Efficacy of Creative Arts and Movement Therapies to Address Trauma-Related Psychopathology"
Advisors: Tanja Jovanovic, Ph.D. – Psychiatry and Behavioral Neurosciences; Arash Javanbakht, M.D. – Psychiatry and Behavioral Neurosciences

2022 - March **Erin Edwards, Ph.D.**
BS in Neuroscience, University of New England
"Backward Walking: A Clinical Marker of Fall Risk for Individuals with Multiple Sclerosis"
Advisor: Nora Fritz, Ph.D., P.T., D.P.T., N.C.S. – Pharmacy & Health Science

2022 - October **Nicole Zabik, Ph.D.**
BS in Biochemistry, Oakland University
"Neural and Behavioral Mechanisms of PTSD: Impact of Endocannabinoid Modulation on Extinction Recall and Avoidance Behaviors"
Advisors: Christine Rabinak, Ph.D. - Pharmacy & Health Science; Mark Greenwald, Ph.D. – Psychiatry and Behavioral Neurosciences

2023 - February **Tabitha Moses, M.D./Ph.D.**
BA in Cognitive Science and Philosophy, John Hopkins University
"Using Neuromodulation to Investigate Potential Treatment Pathways Associated with Stress & Substance Use in Opioid Use Disorder"
Advisor: Mark Greenwald, Ph.D. – Psychiatry and Behavioral Neurosciences

Translational Neuroscience Program: Organization and Committees

Program Director

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Steering Committee

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Administration

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TNP Program Forms