NACS Info Session 2022
Welcome and Overview

Hosted by the NACS Diversity & Inclusion Committee

PROGRAM IN NEUROSCIENCE & COGNITIVE SCIENCE

Thank you to participating committee members

- Dr. Arianna Gard (interim chair)
- Dr. Kate Macleod (faculty)
- Dr. Catherine Carr (faculty)
- Hyung Cho (Gloria) Kim (student)
- Kristine Hodgson-Torres (students)
- Chelsea Haakenson (student)
- Rose Ying (student)
- Norma Pena-Flores (student)
- Deena Shariq (student)
- Rachel Thompson (student)

Meet Our Team

Our committee aims to support individuals by 1) providing NACS-related research opportunities at the undergraduate level, 2) expanding program recruitment efforts, 3) improving accessibility of NACS-related resources, 4) advocating for policies that support full inclusion within the NACS community, and 5) implementing methods to document the diversity of our NACS community

Schedule

- Welcome and NACS Overview (Dr. Gard)
  - **Structure of the NACS Program**
  - **Program-specific and campus-wide resources for NACS students**
  - **Application Process** from the administrative and faculty viewpoint
- Flash Talks to give you a window into what NACS research includes!
  - Dr. Nik Francis
  - Baldassano
  - Junaid Merchant
  - Dr. Arianna Gard
- Graduate Student Panel
- Open Q&A

We are an **interdisciplinary graduate training program** (not a single department) that brings together Neuroscientists and Cognitive Scientists to better understand the brain and behavior.

Departments, Institutes, Centers

- Aerospace Engineering
- Animal and Avian Sciences
- Biology
- Computer Science
- Electrical and Computer Engineering
- English
- Entomology
- Epidemiology and Biostatistics
- Hearing and Speech Sciences
- Human Development & Quantitative Methodology
- Kinesiology
- Linguistics
- Nutrition and Food Sciences
- Philosophy
- Psychology
- Teaching & Learning, Policy & Leadership
- Applied Research Lab for Intelligence and Security
- Institute for Advanced Computer Studies
- Institute for Systems Research
- Maryland Neuroimaging Center
- School of Languages, Literatures, and Cultures
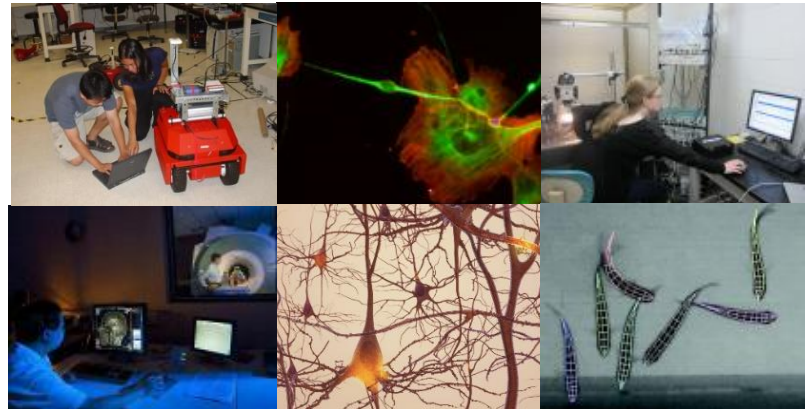- Brain and Behavior Institute

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NACS Research Areas:

- Cellular & Molecular

- Computational Modeling & Theory

- Cognition & Emotion

- Development & Aging

- Disorders & Treatment

- Language & Speech

- Sensory & Motor Systems

Faculty

Total Faculty: 123

- Core UMD faculty: 91
- Adjunct Faculty: 34

  (*National Institutes of Health, Walter Reed National Military Medical Center, Children's National Hospital, UM-Baltimore, Food and Drug Administration*)

Students

Total Students: 56

- Time to degree: 5.5 years
- NACS alumni: 115
- Alumni Placement:
  - Postdoc/Staff Scientist/Research Administrator (73%)
    - Stanford, Johns Hopkins, Michigan, NYU, UCSF, FDA, NIH, etc.
  - Research & Teaching Positions (21%)
  - Private Industry (6%)

see https://nacs.umd.edu/about-us/phd-alumni for placements!

Advisors, Home Department, and Lab Rotations

Students admitted into the NACS program will identify a faculty advisor(s) that they would like to work with (more on this at the end).

Students who conduct research with a NACS adjunct faculty member will have co-advisors. The adjunct faculty member acts as the research advisor and the UMD faculty member acts as academic advisor.

NACS does not require mandatory lab rotations. Students can rotate between two labs during the first year if both advisors agree.

Each NACS student has a home department. This is the department in which the student's advisor (or UM co-advisor) has his/her appointment.
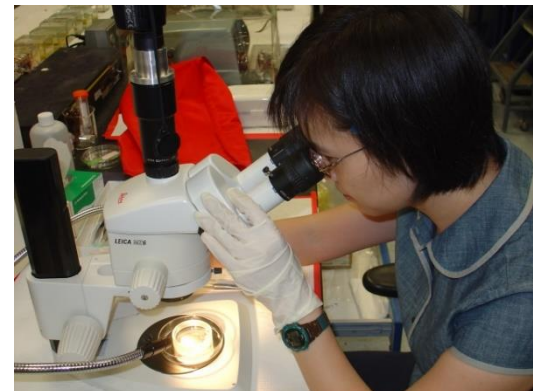
Training

- Student Committee: Your advisor and 2 additional NACS faculty (one outside of your research area).

- First Year Research Project (Year 1)

- Qualifying exam (Year 3)

- Thesis and non-thesis master degree

- Dissertation Proposal (Year 4)

- PhD Defense (Year 5)

8 Total Required Courses:
5 in years 1 and 2
3 additional by year 4 (these can be in any department)

**implication → course load is relatively low. You could finish all courses in year 2!

Student Assistantship Support & Funding

NACS PhD Program is a fully-funded program for 5 years. Stipends are based on the stipend amounts in the student's home department. In addition, students receive up to 10 credits in tuition and have access to employee health benefits. How you will be supported will be clearly defined in your offer letter.

Minimum 12 Month NACS PhD Student Stipends as of 7/1/2022:

- Pre-candidacy (before masters; usually years 1-3): $30,000
- Candidacy (after masters; usually years 4 and 5): $30,500

- Some departments offer slightly higher stipends
- Individual faculty can apply for recruitment fund "boosts" from UMD
- If you apply for an are awarded a research fellowship, your stipend will generally increase ~$5k, but it depends

Student Assistantship Support & Funding

- The source of your funding will determine what you are being compensated for

- All admitted NACS students are awarded **First year Research Assistantships** (RA; 20 hours/week in your lab)

- Years 2-5 may be a combination of:

  - **Graduate Research Assistantships** (RA; 20 hours week)

  - **Teaching Assistantships** (TA; 20 hours per week) – expected to work on research and coursework the other 20 hours per week

- **Research Training Awards** – competitive awards through National Institutes of Health, National Science Foundation, Ford Foundation – all RA-ships

- Dissertation Awards and Summer Fellowships – RA

- Visiting Graduate Fellows in Neuroscience Program – RA

Visiting Fellows in Neuroscience Program (UMCEED)

Chelsea Haakenson
Ball/McCarthy

Shakeera Walker
Glasper/Henry

Sydney Ashton and Katherine Pizano.

Student Activities within NACS

Student initiatives:

- Student seminar series
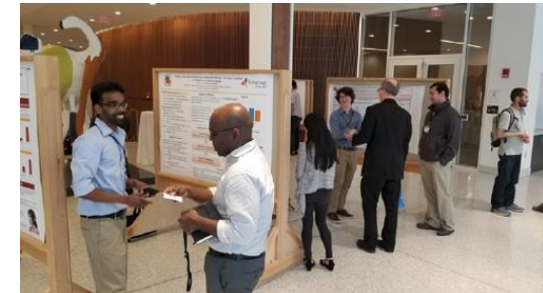- MATLAB workshop
- Methods workshop
- Book club

Student run committees:

- Outreach committee
- Student Representative Committee (SRC)

Other committees:

- Executive Committee
- Colloquium Committee
- Diversity and Inclusion Committee
- NACS-Fest Committee
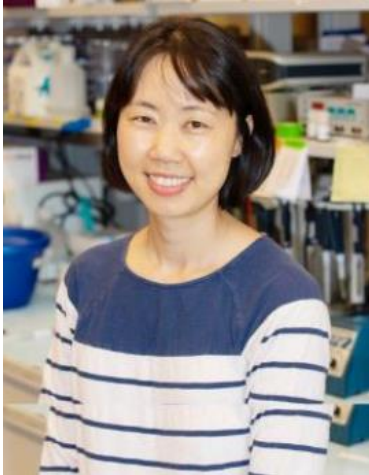- Graduate Student Government

Events within NACS

- Weekly seminar series
- Town Hall
- NACS-Fest
- Research Day
- Outreach Events

Student Support within NACS

- Grants Development Specialist
- Grants Course

Dr. Joo Yun Jun

Daniel Callow

"The effects of acute aerobic exercise on hippocampal function and microstructure in older adults."

Kathryn McNaughton

"Investigating Neural and Behavioral Alignment as a Mechanism of Social Interaction Challenges in Adolescents with Autism Spectrum Disorder"

Campus-Wide Student Activities & Support

Student groups:

▸ UMD Black Graduate Student Union

▸ UMD LCBTQ+ Equity Center

▸ UMD Nyumburu Cultural Center

▸ Latinx Graduate Student Association

▸ more at https://nacs.umd.edu/landingtopic/resources

Grad student resources:

▸ Office of Graduate Diversity & Inclusion

▸ Professional and Career Development Services

▸ University Health Center and Counseling Center

▸ Teaching and Learning Transformation Center

On-Campus Fellowships (for conferences, research, etc):

▸ Graduate School Summer Research Fellowship

▸ Goldhaber Travel Grant

▸ more at https://gradschool.umd.edu/funding/student-fellowships-awards

Why should you come to NACS?

- Amazing faculty and students doing cutting edge interdisciplinary research.

- First Year Research Project allows you to jump right into research

- Grants Specialist and history of grants success for graduate students

- High quality courses but low course load

- Compassionate and inclusive community committed to improving the students experience and diverse career trajectories

- Neuroscience and Cognitive Science is thriving on campus (e.g., Brain and Behavior Institute; Neuroscience Major).

- Proximity to Washington DC gives students unprecedented access to a wide range of career training opportunities (e.g., through the National Institutes of Health, government research organizations, policy centers)

You've decided that you want to apply …

Application Process and Considerations

- NACS is a mentorship-based program, so you identify 1-2 faculty who you would like to work with (remember – no rotations!). Those faculty review the application, which is then also reviewed by the NACS admissions committee

- Not all faculty members will be taking students! This is most often based on funding in the "home department". Therefore, it is critical to email faculty during the summer to inquire about whether they will be reviewing applications

- Minimum GPA from the Graduate School is 3.0

- No GREs required or reviewed

- Required materials: transcripts, Statement of Purpose (2-3 pages), Letters of Recommendation, Writing Sample, CV/Resume, TOEFL/IELTS scores for international applications, application fee.
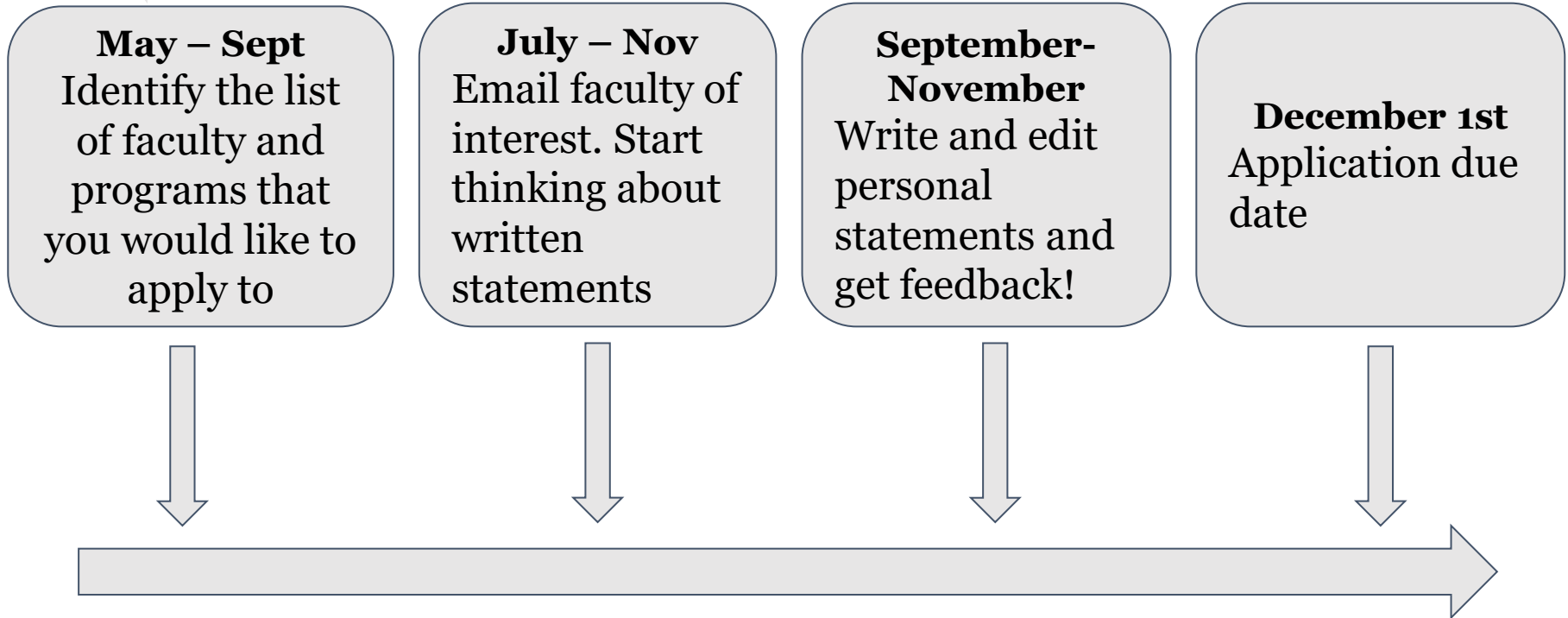
more info: https://nacs.umd.edu/students/application

Application Resources, including tips of application fee waivers:

https://nacs.umd.edu/diversity-inclusion/resources-graduate-school-applications

https://first-gen-guide.com/

Timeline for application process

May – Sept
Identify the list of faculty and programs that you would like to apply to

July – Nov
Email faculty of interest. Start thinking about written statements

September-November
Write and edit personal statements and get feedback!

December 1st
Application due date

What makes a competitive application?

- Because you apply to individual mentors, there is variation in the needs of each lab and faculty mentor. In general, the following are key considerations in the application process:
    - Research Experience (animal lab, human subjects research – depends on intended field of study)
    - Research Fit with Identified Mentor(s)
    - Excellence in Coursework
    - Commitment (either demonstrated or expressed) to Interdisciplinary Scholarship

Choosing a Mentor

- You can gain insight into the type of candidate a lab is looking for based on recent publications as well as what grants that PI has recently applied for (NIH reporter)
- Choose mentors based on who most closely aligns with your research, and hone in on that person in your application.

Statement of Purpose

- Stringing a coherent narrative to what led you to grad school is key, relate the skills you've learned over time into your statement
- Create a giant bullet list of your life, stringing everything together, and how each experience you've had has shaped you to help you create this narrative
- Be prepared to write a lot of drafts, and ask others to provide feedback

Getting Research Experience!

- Important for your trajectory as you figure out what type of research interests you

- Important for developing a competitive application

UNDERGRADUATE RESEARCH POSITION	POSTBAC RESEARCH POSITION
UMD UG Researcher Databases: https://neur.umd.edu/landingtopic/research LOTS of useful information here	Job boards – University job boards, society job boards: https://fluxsociety.org/job-bank/ https://neurojobs.sfn.org/jobs/
Many departments have UG courses for research credit: NEUR Research Credit, PSYC Research Credit. Email professors to ask if they are looking for RAs	NIH Postbac Intramural Research Training Award: https://www.training.nih.gov/programs/postbac_irta
LSAMP Undergraduate Research Program	Academic Twitter!!!!
Maryland Summer Scholars	Direct emails to PIs and Labs
UMD Psych Blog: https://psyc.umd.edu/undergraduate/psyc-e-news-blog	Johns Hopkins PREP Program: https://www.hopkinsmedicine.org/som/pathway/prep.html

Questions?