

# Psychology and Developmental Science



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# Population, Neurodevelopment, Genetics



POPULATION, NEURODEVELOPMENT AND GENETICS  
UNIVERSITY OF MICHIGAN

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## About the Program

The Population, Neurodevelopment and Genetics Program (PNG) is a pioneer and leader in forging linkages across disciplinary perspectives. In addition to the program's current effort to link developmental, cognitive, clinical, public health, and educational science with neurobiology and genetics, we continue to expand our portfolio and involve new research scholars in other health- and development-related topics from prenatal/infancy through adolescence and on to adulthood and aging, (e.g., cognition, substance use, mental health, problem behavior, environmental toxicants), providing opportunities for synergy and integration of new ideas in the relevant fields.

Our multidisciplinary faculty have wide interests across a variety of topics, including education, neuroscience, genetics, developmental psychopathology, environmental toxins, aging, and cognitive development. Faculty members in the program have joint appointments throughout other units on campus, including Psychology, Psychiatry, Education, Medicine, Public Health, Sociology, and the Center for Human Growth and Development, which augments their effort to link disparate fields of research across the University. The PNG program has expanded quickly to include a diverse funding portfolio, including projects from the National Science Foundation, the National Institutes of Health, several foundations, and internal University of Michigan funds. For more information on our currently active research projects and faculty interests, please see the [Grants](#) and [Faculty](#) pages for details.

The program is housed within the Survey Research Center at the Institute for Social Research, and is located in the heart of Central Campus at the University of Michigan.

### Contact Us:

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### PNG ON TWITTER



Reminder- only 2 weeks left to apply for exciting @NICHD\_NIH #postdoc opportunity at @UMich: [goo.gl/1SbJYM](http://goo.gl/1SbJYM)



Social capital and determinants of immigrant family educational involvement: [goo.gl/iG0MG9](http://goo.gl/iG0MG9)



Racial socialization, #racialidentity, academic attitudes among African American adolescents: [goo.gl/DktzXH](http://goo.gl/DktzXH)  
[@\\_sandratang](https://twitter.com/_sandratang)

### RECENT POSTS

#### Call for Submissions: Developmental Methodology Conference

Noel A. Card and Todd D. Little Co-Organizers  
September 22 – 24, 2016 Whitefish, MT Submission portal: [developmentalmethods.org](http://developmentalmethods.org) Submission Deadline: May 23, 2016 Co-Organizers Noel Card and Todd Little invite [...]

#### Post-Doctoral Research Fellowship

Post-Doctoral Research Fellowship Developmental Psychology at the University of Michigan Applications are now being accepted for a 2-year NICHD post-doctoral research fellowship in Developmental Science at the University of Michigan. [...]

# Challenges to be Addressed



- Computational methods for combining survey data with complex imaging and genetic data
- Adding biomeasures and other complex (big data) measures into these data sets (e.g. fitbit, test from applications)
- National sampling of fMRI data from different machines
- Data collection via smartphones on psychological constructs associated with behavior plus geotagged data.

# Challenges to be Addressed



- **Social Media and connection to Behavioral outcomes**
  - Can we collect this via smartphones or other devices
- **Expensive to send interviewers to the home**
  - Can we collect achievement, executive function data, health, mental health, biomarkers, home observations via devices that can be sent to the home.
  - How do we ascertain that the person using the device is the one we have sampled?
  - How do we make sure data is secured and private?
  - How do we analyze multiple time points of data, multiple respondents, multiple constructs?