# Alexander Greer Nackenoff, Ph.D.

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**Neuropharmacology Ph.D.** with over ten years of experience evaluating biological activity and efficacy of human drugs, preclinical pharmacological screening, experimental design and acquisition of data, statistical modeling and data validation, presentation to skilled and lay audiences at professional meetings, writing comprehensive literature reviews and original peer reviewed scientific publications, grant preparation and submission resulting in funding, undergraduate training and mentorship, and team leadership.

## SKILLS

- *In Vitro* & *In Vivo* Pharmacology
- Fostered Interdisciplinary Collaborations Between Academia & Industry
- Mentorship & Training
- Awarded Presenter to Professional Conferences
- Absorb & Process New Information Quickly
- Statistical Modeling & Analysis
- Peer Reviewer Providing Expert Guidance upon Preclinical Studies
- Scientific Writing of Peer Reviewed Publications
- Data Handling & Processing

## EDUCATION

Vanderbilt University — Nashville, Tennessee
**Ph.D. in Pharmacology** — *2009-2016*

Macalester College — St. Paul, Minnesota
**B.A. in Psychology, with Honors** — *2005-2009*

## PROFESSIONAL EXPERIENCE

**Postdoctoral Fellow** — *08/2016-present*
Vanderbilt University Medical Center — Nashville, Tennessee
Laboratory of Matthew Schrag, M.D., Ph.D.
matthew.schrag@vumc.org | 615-936-0060 | may contact

- Established the biological function of a novel Alzheimer's risk gene PLD3. These efforts have secured laboratory funding via NIH K76 grant.
- Project lead, development, and execution of a novel evaluation of the pervasive cerebral blood vessel pathology in Cerebral Amyloid Angiopathy (CAA), a vascular amyloid pathology related to Alzheimer's Disease, via CLARITY. These findings helped secure laboratory funding via NIH R03 grant.
- Model development for Alzheimer's Disease to mediate screening gene-interference siRNA and small molecule therapeutics for Alzheimer's Disease in novel organotypic brain tissue culturing, *ex vivo* drug treatment, and live imaging.

**Graduate Research** — *08/2009-05/2016*
Vanderbilt University — Nashville, Tennessee
Laboratory of Randy Blakely, Ph.D.
rblakely@health.fau.edu | 561-799-8100 | may contact

- I utilized a novel animal model with an impacted orthosteric drug recognition site at SERT (the designed target of SSRIs) to prove with the most targeted series of assays to date that SERT antagonism is required for the acute and chronic behavioral and biochemical antidepressant efficacy of SSRIs.
- Project lead and pioneer of industry/academia collaboration with Lundbeck Pharmaceuticals to investigate the serotonin specific actions of the [then] preclinical compound AA21004 (aka. Vortioxetine, Brintillex). Enlisting research support from more senior postdoctoral lab and Lundbeck fellows, we found that non-SERT actions of AA21004 were sufficient alone to produce acute and chronic antidepressant effects, representing a new strategy to pursue novel serotonin directed pharmacotherapies.

**Brewery Intern** *08/2015-10/2015*

Tennessee Brew Works Nashville, Tennessee

Supervisor: Laura Burns, Ph.D., Head Brewer

- Research, development, evaluation, and establishment of an in-house cost saving standard operating procedure (SOP) and guidelines for the detection of aerobic and anaerobic beer-spoiling bacteria and evaluation of devices measuring dissolved gasses (oxygen ppm and ppb, and carbon dioxide ppm) in wort, beer, and bottled product.

**Research Assistant** *05/2008-09/2008*

Macalester College St. Paul, Minnesota

Laboratory of Eric Wiertelak, Ph.D.

wiertelak@macalester.edu | 651-696-6111 | may contact

- Device design and development of novel rodent models for chronic pain, aiming to establish new pre-clinical standards for greater predictive framework for new drugs and treatments for human chronic pain.

**Undergraduate Honors Research** *05/2008-09/2008*

Macalester College St. Paul, Minnesota

Advisor: Eric Wiertelak, Ph.D.

- Development of a novel rodent model of drug sensitive gambling paradigm.

## PROFESSIONAL DEVELOPMENT

**Regulatory Affairs Training Workshop** *03/2019*

Vanderbilt University Medical Center Nashville, Tennessee

- Self-sought multi-day training led by an industry professional on the regulatory framework of the FDA.

## HONORS & AWARDS

- Awarded T32-AG058524 research training grant, Vanderbilt Memory & Alzheimer's Center *2018*
- Best Poster Presentation, ASPET Neuropharmacology Division *2015*
- Invited Oral Presentation at ASPET/EB *2015*
- Honors graduate, Macalester College, Department of Psychology *2009*
- Emerging Leaders Program, Macalester College *2007*
- Eagle Scout, Boy Scouts of America; recipient of bronze, gold, and silver palms *2004*

## COMPUTER SKILLS

Microsoft Office Suite (Outlook, Word, Excel, Onenote), Adobe Suite (Photoshop, Illustrator, Lightroom), GraphPad Prism, SPSS, R, Stata, Windows, MacOS, Linux, Secure messaging & E-mail, HTML/CSS, LaTeX

## SELECTED PUBLICATIONS

- **Nackenoff AG**, Hohman TJ, Neuner SM, Akers CS, Weitzel NC, Shostak A, Ferguson S, Bennett DA, Schneider JA, Jefferson AL, Kaczorowski CC, Schrag MS. PLD3 is a Neuronal Lysosomal Phospholipase D Associated with β-amyloid Plaques and Memory in Sporadic Alzheimer's Disease. *Journal of Alzheimer's & Dementia*. Submitted.
- Schommer J, Schrag M, **Nackenoff AG**, Marwarha G, Ghribi O. Method for organotypic tissue culture in the aged animal. *MethodsX*. 4 (2017) 166-171.
- Simmler LD, Anacker AMJ, Levin MH, Vaswani NM, Gresch PJ, **Nackenoff AG**, Anastasio NC, Stutz SJ, Cunningham KA, Wang J, Zhang B, Henry LK, Stewart A, Veenstra-VanderWeele J, Blakely RD. Blockade of the 5-HT transporter contributes to the behavioural, neuronal and molecular effects of cocaine. *British Journal of Pharmacology*, 174 (2017) 2716-2738.
- **Nackenoff AG**, Simmler LD, Baganz NL, Paffenroth KC, Stanwood GD, Pehrson AL, Sanchez C, Blakely RD. Serotonin Transporter-Independent Actions Of The Antidepressant Vortioxetine As Revealed Using The SERT M172 Mouse. *ACS Chemical Neuroscience*, 8 (2017) 1092-1100.
- **Nackenoff AG**, Moussa-Tooks, AM, McMeekin, AM, Veenstra-VanderWeele J, Blakely RD. Essential Contributions of Serotonin Transporter Inhibition to the Acute and Chronic Actions of Fluoxetine and Citalopram in the SERT Met172 Mouse. *Neuropsychopharmacology*. 41 (2016) 1733-1741