



Peter Nonso Nwokoye

MD Student with Scholarly Concentration in Bioengineering, expected graduation Spring 2028

Bio

BIO

Peter Nonso Nwokoye was born and raised in Nigeria and graduated summa cum laude with dual Bachelor of Science degrees in Chemistry and Biology from Barry University. During his undergraduate studies, he worked on the synthesis of selective muscarinic receptor agonists and antagonists. In 2021, he was awarded the prestigious Gates Cambridge Scholarship to study at King's College, University of Cambridge. There, under the mentorship of Professor Anthony Davenport, he researched the expression and signaling of the apelin receptor and its endogenous agonists, Elabela and Apelin, in glioblastoma stem cells. This experience sparked his interest in developing novel methods to deorphanize orphan Class A GPCRs. After several months of intensive computational research, Peter developed a complex, multi-layered bioinformatic tool that he has used to identify likely endogenous ligands of orphan GPCRs, focusing on peptide ligands found in annotated uncharacterized open reading frames in the human genome. In his free time, he enjoys soccer, running, meditating, and teaching. Peter is excited about pursuing a career as a physician-scientist.

HONORS AND AWARDS

- Gates Cambridge Scholarship, Gates Foundation (2021)

EDUCATION AND CERTIFICATIONS

- Bachelor of Science, Barry University (2016)
- BS, Barry University , Chemistry and Biology (2016)
- MPhil, University of Cambridge , Translational Biomedical Research (2022)

Publications

PUBLICATIONS

- **Gastruloids enable modeling of the earliest stages of human cardiac and hepatic vascularization.** *Science (New York, N.Y.)*
Abilez, O. J., Yang, H., Guan, Y., Shen, M., Yildirim, Z., Zhuge, Y., Venkateshappa, R., Zhao, S. R., Gomez, A. H., El-Mokahal, M., Dunkenberg, L., Ono, Y., Shibata, et al
2025; 388 (6751): eadu9375
- **Blood vessels in a dish: the evolution, challenges, and potential of vascularized tissues and organoids.** *Frontiers in cardiovascular medicine*
Nwokoye, P. N., Abilez, O. J.
2024; 11: 1336910
- **Expression of the apelin receptor, a novel potential therapeutic target, and its endogenous ligands in diverse stem cell populations in human glioblastoma.** *Frontiers in neuroscience*
Williams, T. L., Nwokoye, P., Kuc, R. E., Smith, K., Paterson, A. L., Allinson, K., Maguire, J. J., Davenport, A. P.
2024; 18: 1379658

- **Bioengineering methods for vascularizing organoids.** *Cell reports methods*
Nwokoye, P. N., Abilez, O. J.
2024: 100779
- **Novel M2 -selective, Gi -biased agonists of muscarinic acetylcholine receptors.** *British journal of pharmacology*
Randáková, A., Nelic, D., Ungerová, D., Nwokoye, P., Su, Q., Doležal, V., El-Fakahany, E. E., Boulos, J., Jakubík, J.
2020; 177 (9): 2073-2089