

Kelvin Chen

CONTACT INFORMATION	University of Virginia College of Arts & Sciences Charlottesville, VA 22904	Phone: (+1) 929-377-0923 Email: ddw4hp@virginia.edu Homepage: k9chen.github.io
RESEARCH INTERESTS	Translational neuroscience, nervous system disorders, neural stem cell biology, neuroimaging, machine learning, applied neuroethics	
EDUCATION	University of Virginia , Charlottesville, VA 2022 – 2026 (Expected) <ul style="list-style-type: none">• B.A., Neuroscience & Cognitive Science; Minor, Bioethics New Horizons Governor’s School for Science & Technology , Hampton, VA 2020 – 2022 <ul style="list-style-type: none">• Dual Enrollment, Biological Sciences Woodside High School , Newport News VA 2018 – 2022 <ul style="list-style-type: none">• Advanced Studies Diploma	
RESEARCH EXPERIENCE	UVA School of Medicine , Charlottesville, VA 2023 – Present Undergraduate Researcher, Department of Neuroscience Advisor: Lulu Jiang, MD, PhD <ul style="list-style-type: none">• <i>Current project</i>: Investigating the molecular mechanism underlying nuclear membrane disruption and nucleocytoplasmic translocation of proteins and transcripts triggered by tau pathology in Alzheimer’s disease. Barrow Neurological Institute , Phoenix, AZ Summer 2023 Research Intern, Department of Translational Neuroscience Advisor: Richard Dortch, PhD <ul style="list-style-type: none">• Modeled multi-compartmental diffusion MRI signals in pre-clinical rat models of peripheral nerve trauma to derive diffusion tensor imaging and spherical mean technique-based metrics for monitoring axonal re/degeneration. UVA School of Medicine , Charlottesville, VA 2022 – 2023 Undergraduate Researcher, Department of Pharmacology Advisor: Julius Zhu, PhD <ul style="list-style-type: none">• Optimized a genetically encoded sensor-based image visualization and analysis algorithm for rendering nanoscopic images of neuromodulatory synaptic activities. Hampton University , Hampton, VA 2021 – 2022 Research Intern, Department of Chemistry & Biochemistry Advisor: Peter Njoki, PhD <ul style="list-style-type: none">• Explored the role of gold nanoparticles for COVID-19 diagnosis and its mediating effect with antiviral drugs to target the SARS-CoV-2 RdRp gene.	
PUBLICATIONS	Editorials [E.1] Chen, K. , <i>Towards a Brave New World: The Huxleyan Reality of Using Pharmacological Neuroenhancement</i> Grounds: The Virginia Journal of Bioethics, 2023 [HTML] [E.2] Chen, K. , <i>The Inadvertent Consequences of Scanning the Human Brain</i> Grounds: The Virginia Journal of Bioethics, 2023 [HTML] [E.3] Chen, K. , <i>Moral Status in Cerebral Organoids, Gastruloids, and Chimeras</i> Grounds: The Virginia Journal of Bioethics, 2023 [HTML]	

- [E.4] **Chen, K.**, *On the Psychological Disembodiment of Autonomy and Agency in Patients with Brain-Computer Interface Implants* Grounds: The Virginia Journal of Bioethics, 2023 [\[HTML\]](#)
- [E.5] **Chen, K.**, *Therapeutic Nihilism in Disorders of Consciousness Care and the Right to Live* Grounds: The Virginia Journal of Bioethics, 2023 [\[HTML\]](#)
- [E.6] **Chen, K.**, *A Neuroethical Discourse on the Application of Optogenetics for Memory Modification* Grounds: The Virginia Journal of Bioethics, 2023 [\[HTML\]](#)

PRESENTATIONS **Posters**

- [P.1] **Chen, K.**, Sadrabadi, M.S., Dortch, R.D. *Geometry-Informed Multi-Compartmental Diffusion MRI Modeling of Injured Peripheral Nerves* Barrow Neurological Institute Undergraduate Symposium. Phoenix, AZ, 2023 [\[PDF\]](#)

TEACHING EXPERIENCE

University of Virginia, Charlottesville, VA

Undergraduate Teaching Assistant, Department of Chemistry

- CHEM 1811: Principles of Chemical Structure Laboratory (Accelerated) Fall 2023
- CHEM 2311: Organic Chemistry Laboratory I (for Non-Chemistry Majors/Minors) Fall 2023

HONORS & AWARDS

- Echols Scholarship, UVA 2023
- University Achievement Award Scholarship (~\$80,000), UVA 2022 – 2026
- Distinguished Research Mentorship Award, NHGSST 2022
- Valedictorian, WHS 2022

TECHNICAL SKILLS

- Programming Languages: MATLAB, R
- Softwares: LaTeX, Microsoft Offices

SERVICE & OUTREACH

- The Cavalier Daily, Senior Translator 2023 – Present
- The Oculus: The Virginia Journal of Undergraduate Research, Copy Editor 2022 – Present
- Grounds: The Virginia Journal of Bioethics, Editor 2022 – Present
- University Judiciary Committee, Investigator 2022 – Present
- The Blosson Together Association, Senior Associate 2022 – Present
- Madison House, Medical Services Volunteer 2022 – 2023

REFERENCES

Lulu Jiang, MD, PhD, Assistant Professor of Neuroscience, UVA School of Medicine
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Richard Dortch, PhD, Associate Professor of Imaging Research, Barrow Neurological Institute
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