Steven A. Kell

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Education

PhD in Molecular and Systems Pharmacology **August 2018 – Present**
Emory University, Atlanta, GA
Dissertation Title: "Mechanisms of Gating and Modulation of GluN1/GluN2B NMDA Receptors"
Advisor: Dennis Liotta, PhD; Co-advisor: Stephen Traynelis, PhD

BA in Chemistry **August 2010 – May 2014**
Emory University, Atlanta, GA
Chemistry credit hours: 34
Biology credit hours: 33 (exceeded requirement for BS degree in Biology)

Work Experience

Research Assistant **December 2015 – August 2018**
Laboratories of Stephen Traynelis, PhD and Dennis Liotta, PhD

Pharmacy Technician (Certified) **September 2014 – October 2017**
Kroger Pharmacy (Suwanee, GA)

Professional Organizations

American Chemical Society (ACS)
ACS Division of Medicinal Chemistry

American Society for Pharmacology and Experimental Therapeutics (ASPET)

Honors and Awards

ACS MEDI Predoctoral Fellowship (1 year) **August 2021 – August 2022**

Leadership

Drug Discovery and Delivery Seminar Series at Emory University
Co-founder of the student-led seminar series sponsored by Emory University's Department of Chemistry, Department of Pharmacology & Chemical Biology, Biological Discovery Through Chemical Innovation (BDCI), and the Molecular & Systems Pharmacology (MSP) PhD program.

Teaching and Advising

Teaching Assistantship **Fall 2019**
IBS 717: Neuropharmacology (Emory University)
Instructors: Michael Owens, PhD and Michael Kuhar, PhD

Advising

Paul Joseph Tholath (Undergraduate Researcher) **June 2017 – September 2020**

Adam Hamilton (Neuroscience PhD Student, Rotation Project) **May 2018 – August 2018**

Presentations and Posters

2021 ACS National Meeting

Oral Presentation (invited)

2021 Medicinal Chemistry Gordon Research Conference

Poster Presentation (invited)

Peer Review Activity

Reviewer for ACS Medicinal Chemistry Letters, Cell Reports Medicine, and Neuron

Publications

1. Allen, J.P., K.B. Garber, R.E. Perszyk, C.T. Khayat, **S.A. Kell**, M. Kaneko, C. Quindipan, S. Saitta, R.L. Ladda, S. Hewson, M. Inbar-Feigenberg, C. Prasad, A.N. Prasad, L. Olewiler, W. Mu, L.S. Rosenthal, M. Scala, P. Striano, F. Zara, T.W. McCullock, R. Jauss, J.R. Lemke, D.M. MacLean, C. Zhu, H. Yuan, S.J. Myers, and S.F. Traynelis, Clinical features, functional consequences, and rescue pharmacology of missense GRID1 and GRID2 human variants. Human Molecular Genetics, 2024. 33(4): p. 355-373.

2. Oum, Y.H., **S.A. Kell**, Y. Yoon, Z. Liang, P. Burger, and H. Shim, Discovery of novel aminopiperidinyl amide CXCR4 modulators through virtual screening and rational drug design. European Journal of Medicinal Chemistry, 2020. 201: p. 112479.

3. Okafor, C.D., D. Hercules, **S.A. Kell**, and E.A. Ortlund, Rewiring Ancient Residue Interaction Networks Drove the Evolution of Specificity in Steroid Receptors. Structure, 2020. 28(2): p. 196-205.e3.

4. McDaniel, M.J., K.K. Ogden, **S.A. Kell**, P.B. Burger, D.C. Liotta, and S.F. Traynelis, NMDA receptor channel gating control by the pre-M1 helix. Journal of General Physiology, 2020. 152(4).

5. Summer, S.L., **S.A. Kell**, Z. Zhu, R. Moore, D.C. Liotta, S.J. Myers, G.W. Koszalka, S.F. Traynelis, and D.S. Menaldino, Di-aryl Sulfonamide Motif Adds π-Stacking Bulk in Negative Allosteric Modulators of the NMDA Receptor. ACS Medicinal Chemistry Letters, 2019. 10(3): p. 248-254.

6. Perszyk, R., B.M. Katzman, H. Kusumoto, **S.A. Kell**, M.P. Epplin, Y.A. Tahirovic, R.L. Moore, D. Menaldino, P. Burger, D.C. Liotta, and S.F. Traynelis, An NMDAR positive and negative allosteric modulator series share a binding site and are interconverted by methyl groups. eLife, 2018. 7: p. e34711.

7. Gibb, A.J., K.K. Ogden, M.J. McDaniel, K.M. Vance, **S.A. Kell**, C. Butch, P. Burger, D.C. Liotta, and S.F. Traynelis, A structurally derived model of subunit-dependent NMDA receptor function. The Journal of Physiology, 2018. 596(17): p. 4057-4089.

8. Kaiser, T.M., **S.A. Kell**, H. Kusumoto, G. Shaulsky, S. Bhattacharya, M.P. Epplin, K.L. Strong, E.J. Miller, B.D. Cox, D.S. Menaldino, D.C. Liotta, S.F. Traynelis, and P.B. Burger, The Bioactive Protein-Ligand Conformation of GluN2C-Selective Positive Allosteric Modulators Bound to the NMDA Receptor. Molecular Pharmacology, 2018. 93(2): p. 141.