

Curriculum Vitae

Kasper B. Hansen

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Education

- 2005: Ph.D. in Molecular Pharmacology at the Drug Research Academy, Faculty of Pharmaceutical Sciences, University of Copenhagen, Denmark. Graduated March 2006.
 Title of thesis: “*Studies on the Molecular Pharmacology of Recombinant NMDA Receptors*”.
 Advisor: Professor Hans Bräuner-Osborne, Department of Medicinal Chemistry, Faculty of Pharmaceutical Sciences, University of Copenhagen, Denmark.
- 2002: M.Sc. in Molecular Biology, University of Aarhus, Denmark.
 Title of thesis: “*Direct Interaction between Distinct Neurotransmitter Systems*”.
 Advisor: Associate Professor Jan Egebjerg, Department of Molecular Biology, University of Aarhus, Denmark.
- 1998: B.Sc. in Chemistry, University of Aarhus, Denmark.

Research Training and Job Experience

- 2019-present: Associate Professor, Center for Structural and Functional Neuroscience, Center for Biomolecular and Structural Dynamics, Division of Biological Sciences, University of Montana, Missoula, MT.
- 2013-2019: Assistant Professor, Center for Structural and Functional Neuroscience, Center for Biomolecular and Structural Dynamics, Department of Biomedical & Pharmaceutical Sciences, University of Montana, Missoula, MT.
- 2006-2013: Postdoctoral Fellow with Professor Stephen F. Traynelis, Department of Pharmacology, Emory University School of Medicine, Atlanta, GA.
- 2006: Postdoctoral Fellow in Department of Molecular Biology, H. Lundbeck A/S, Denmark.

Awards and Honors

- 2017: “Teacher of the Month” by the Rho Chi Society (Academic Honor Society in Pharmacy) (November 2017)
- 2016: “Teacher of the Month” by the Rho Chi Society (Academic Honor Society in Pharmacy) (November 2016)
- 2013: Travel Stipend, Lundbeck Foundation, Denmark.
- 2012: Winter Conference on Brain Research Travel Fellowship
- 2008: IUPHAR Young Investigator Poster Award (1st prize)
- 2007-2008: Travel Grant, Danish Council for Independent Research - Medical Sciences, Denmark.
- 2002-2005: Ph.D. Studentship at Drug Research Academy, University of Copenhagen, Denmark.

Grants, and Fellowships

- 2019: Artificial Intelligence Molecular Screen (AIMS) Awards (Project IDs: A19-339 and A19-195)
- 2017-2018: CBSD-CoBRE Pilot Project Award
- 2016-2021: NIH-NINDS R01NS097536
- 2016-2017: University of Montana Small Grant
- 2014-2017: CBSD-CoBRE Junior Investigator Award
- 2013-2016: CBSD-CoBRE-Supported Startup Funding
- 2008: Research Grant, Foundation of 17-12-1981, Denmark.

- 2007-2009: Postdoctoral Fellowship Grant, Lundbeck Foundation, Denmark.
 2007-2008: Postdoctoral Fellowship Grant, Villum Kann Rasmussen Foundation, Denmark.
 2006-2007: Alfred Benzon Research Fellowship Grant, Alfred Benzon Foundation, Denmark.
 2002-2005: Ph.D. Studentship at Drug Research Academy, University of Copenhagen, Denmark.

Professional Societies

- American Society for Pharmacology and Experimental Therapeutics (2017-present)
- Society for Neuroscience (2006-present)
- Biophysical Society (2009-present)
- Danish Society of Pharmacology and Toxicology (2002-2009)

Grant Review and Editorial Board

- Editorial Advisory Board of Molecular Pharmacology (2016-present)
- UK Research and Innovation, Medical Research Council, Neurosciences and Mental Health, *ad hoc* grant review (March 2019-present)
- American Heart Association, Fellowship Cardiac Electro Basic Science Study Group, *ad hoc* grant review (August 2018-present)
- Multiple Sclerosis Society, *ad hoc* grant review (June 2018)

Occasional Reviewer (# of reviews, excluding revisions)

ACS Medicinal Chemistry Letters (1), eLife (1), Biological Psychiatry (1), Biophysical Journal (1), British Journal of Pharmacology (2), Brain Research (2), Cellular and Molecular Life Sciences (1), EMBO Journal (1), European Journal of Pharmacology (1), Journal of Medicinal Chemistry (3), Journal of Neurophysiology (3), Journal of Neuroscience (8), Journal of Pharmacology and Experimental Therapeutics (3), Journal of Physiology (3), Molecular Pharmacology (21), Nature (2), Nature Communications (3), Nature Neuroscience (1), Nature Structural and Molecular Biology (1), Neurochemistry International (3), Neuron (4), Neuropharmacology (2), PLOS ONE (2), Science (1), Scientific Reports (2), Translational Psychiatry (1).

Journal Publications

Google Scholar h-index 31, see <https://scholar.google.com/citations?user=X-dyvcEAAAAJ&hl=en>

Web of Science h-index 26, see Publons at <https://publons.com/researcher/2899845/kasper-b-hansen>

66. **Stereoselective synthesis of new (2S,3R)-3-carboxyphenylpyrrolidine-2-carboxylic acid analogues utilizing a C(sp³)-H activation strategy and structure-activity relationship studies at the ionotropic glutamate receptors.**
 Kayser S, Hansen JC, Staudt M, Moroz A, Larsen Y, Temperini P, Yi F, Syrenne JT, Krosgaard-Larsen N, Iliadis S, Nielsen B, Hansen KB, Pickering DS, and Bunch L.
ACS Chem Neurosci (2020). Mar 4; Manuscript in press.
65. **PTC-174, a positive allosteric modulator of NMDA receptors containing GluN2C or GluN2D subunits.**
 Yi F, Rouzbeh N, Hansen KB, Xu Y, Fanger CM, Gordon E, Paschetto K, Menniti FS, and Volkmann RA.
Neuropharmacology (2020). Jan 25; Manuscript in press.
64. **Functional and pharmacological properties of triheteromeric GluN1/2B/2D NMDA receptors.**
 Yi F, Bhattacharya S, Thompson CM, Traynelis SF, and Hansen KB.
J Physiol (2019). 597(22):5495-5514.
63. **Design and synthesis of 2,3-trans-proline analogues as ligands for ionotropic glutamate receptors and excitatory amino acid transporters.**
 Poulic CBM, Alcaide A, Krell-Jørgensen M, Larsen Y, Astier E, Bjørn-Yoshimoto WE, Yi F, Syrenne JT, Storgaard M, Nielsen B, Frydenvang KA, Jensen AA, Hansen KB, Pickering DS, and Bunch L.
ACS Chem Neurosci (2019). 10(6):2989-3007.
62. **Use of the 4-hydroxytriazole moiety as a bioisosteric tool in the development of ionotropic glutamate receptor ligands.**

Sainas S, Temperini P, Farnsworth JC, Yi F, Møllerud S, Jensen AA, Nielsen B, Passoni A, Kastrup JS, Hansen KB, Boschi D, Pickering DS, Clausen RP, and Lolli ML.
J Med Chem (2019). 62(9):4467-4482.

61. **Functional assessment of triheteromeric NMDA receptors containing a human variant associated with epilepsy.**
Marwick KFM, Hansen KB, Skehel P, Hardingham G, and Wyllie DJA.
J Physiol (2019). 597(6):1691-1704.
60. **Triheteromeric GluN1/GluN2A/GluN2C NMDA receptors with unique single channel properties are the dominant receptor population in cerebellar granule cells.**
Bhattacharya S, Khatri A, Swanger SA, DiRaddo JO, Yi F, Hansen KB, Yuan H, and Traynelis SF.
Neuron (2018). 99(2):315-328.e5.
59. **Structure, function, and allosteric modulation of NMDA receptors.**
Hansen KB, Yi F, Perszyk RE, Furukawa H, Wollmuth LP, Gibb AJ, and Traynelis SF.
J Gen Physiol (2018). 150(8):1081-1105.
58. **Properties of triheteromeric N-Methyl-d-aspartate receptors containing two distinct GluN1 isoforms.**
Yi F, Zachariassen LG, Dorsett KN, and Hansen KB.
Mol Pharmacol (2018). 93(5):453-467.
57. **Augmentation of anti-cancer drug efficacy in murine hepatocellular carcinoma cells by a peripherally acting competitive N-methyl-D-aspartate (NMDA) receptor antagonist.**
Gynther M, Silvestri IP, Hansen JC, Hansen KB, Malm T, Ishchenko Y, Larsen Y, Han L, Kayser S, Auriola S, Petsalo A, Nielsen B, Pickering DS, and Bunch L.
J Med Chem (2017). 60(23):9885-9904.
56. **NMDA receptors in the central nervous system.**
Hansen KB, Yi F, Perzyk R, Menniti FS, and Traynelis SF.
Methods Mol Biol (2017). 1677:1-80.
55. **Selective cell-surface expression of triheteromeric NMDA receptors.**
Yi F, Traynelis SF, and Hansen KB.
Methods Mol Biol (2017). 1677:145-162.
54. **Structural basis of subunit-selectivity for competitive NMDA receptor antagonists with preference for GluN2A over GluN2B subunits.**
Lind GE, Mou T-C, Tamborini L, Pomper MG, De Micheli C, Conti P, Pinto A, and Hansen KB.
Proc Natl Acad Sci U S A (2017). 114(33):E6942-E6951.
53. **Subtype-specific agonists for NMDA receptor glycine binding sites.**
Maolanon AR, Risgaard R, Wang S-Y, Snoep Y, Papangelis A, Yi F, Holley D, Barslund AF, Svenstrup N, Hansen KB, and Clausen RP.
ACS Chem Neurosci (2017). 8(8):1681-1687.
52. **Identification of AICP as a GluN2C-selective NMDA receptor superagonist at the GluN1 glycine site.**
Jessen M, Frederiksen K*, Yi F, Clausen RP, Hansen KB*, Bräuner-Osborne H, Kilburn P, and Damholt A.
Mol Pharmacol (2017). 92(2):151-161.
* Co-corresponding authors.
51. **Allosteric interactions between NMDA receptor subunits shape the developmental shift in channel properties.**
Sun W, Hansen KB, and Jahr CE.
Neuron (2017). 94(1):58-64.e3.
50. **Development of Radiolabeled Ligands Targeting the Glutamate Binding Site of the N-Methyl-d-aspartate Receptor as Potential Imaging Agents for Brain.**

- Tamborini L, Chen Y, Foss CA, Pinto A, Horti AG, Traynelis SF, De Micheli C, Mease RC, Hansen KB, Conti P, and Pomper MG.
J Med Chem (2016). 59(24):11110-11119.
49. **Structural basis for negative allosteric modulation of GluN2A-containing NMDA receptors.**
Yi F*, Mou T-C*, Dorsett KN, Volkmann RA, Menniti FS, Sprang SR, and Hansen KB.
* Authors contributed equally to the work.
Neuron (2016). 91(6):1316-29.
48. **Pharmacology of triheteromeric N-methyl-D-aspartate receptors.**
Cheriyian J, Balsara RD, Hansen KB, and Castellino FJ.
Neurosci Lett (2016). 617:240-246.
47. **Pharmacology and structural analysis of ligand binding to the orthosteric site of glutamate-like GluD2 receptors.**
Kristensen AS, Hansen KB, Naur P, Olsen L, Levasseur NL, Dravid SM, Kvist T, Pøhlsgaard J, Clausen RP, Gajhede M, Kastrup JK, and Traynelis SF.
Mol Pharm (2016). 89(2):253-62.
46. **Binding of ArgTx-636 in the NMDA receptor ion channel.**
Poulsen MH, Andersen J, Christensen R, Hansen KB, Traynelis SF, Strømgaard K, and Kristensen AS.
J Mol Biol (2015). 427(1):176-89.
45. **Structural determinants and mechanism of action of a GluN2C-selective NMDA receptor potentiator.**
Khatri A, Swanger SA, Hansen KB, Burger P, Karakas E, Zimmerman SS, Liotta DC, Furukawa H, and Traynelis SF.
Mol Pharm (2014). 86(5):548-60.
44. **Glutamate receptors: Mechanist twists and turns (News & Views).**
Hansen KB and Traynelis SF.
Nat Chem Biol (2014). 10(9):698-9.
43. **Design, synthesis, and structure-activity relationship of a novel series of GluN2C-selective potentiators.**
Zimmerman SS, Khatri A, Garnier-Amblard EC, Mullasseril P, Kurtkaya NL, Gyoneva S, Hansen KB, Traynelis SF, and Liotta DC.
J Med Chem (2014). 57(6):2334-56.
42. **Distinct functional and pharmacological properties of triheteromeric GluN1/GluN2A/GluN2B NMDA receptors.**
Hansen KB, Ogden KK, Yuan H, and Traynelis SF.
Neuron (2014). 81(5):1084-96.
41. **Functional analysis of a *de novo* GRIN2A missense mutation associated with early-onset epileptic encephalopathy.**
Yuan H, Hansen KB, Zhang J, Pierson TM, Markello T, Fuentes-Fajardo KV, Holloman CM, Adams DR, Tiffit CJ, Boerkoel CF, Gahl WA, and Traynelis SF.
Nat Commun (2014). 5:3251.
40. **Crystal structure and pharmacological characterization of a novel N-methyl-D-aspartate (NMDA) receptor antagonist at the GluN1 glycine binding site.**
Kvist T, Steffensen TB, Greenwood JR, Tabrizi FM, Hansen KB, Gajhede M, Pickering DS, Traynelis SF, Kastrup JS, and Bräuner-Osborne H.
J Biol Chem (2013). 288(46):33124-35.
39. **Structure-based discovery of antagonists for GluN3-containing N-methyl-D-aspartate receptors.**
Kvist T, Greenwood JR, Hansen KB, Traynelis SF, and Bräuner-Osborne H.
Neuropharmacology (2013). 75C:324-36.
38. **Development of 2'-substituted (2*S*,1'*R*,2'*S*)-2-(carboxycyclopropyl)glycine analogues as potent N-methyl-D-aspartic acid receptor ligands.**
Risgaard R, Nielsen SD, Hansen KB, Jensen CM, Nielsen B, Traynelis SF, Clausen RP.

J Med Chem (2013). 56(10):4071-81.

37. **Structural determinants of agonist efficacy at the glutamate binding site of *N*-methyl-D-aspartate receptors.**
Hansen KB, Tajima N, Risgaard R, Perszyk R, Jørgensen L, Vance KM, Ogden KK, Clausen RP, Furukawa H, and Traynelis SF.
Mol Pharmacol (2013). 84(1):114-27.
36. **Modal gating of GluN1/GluN2D NMDA receptors.**
Vance KM, Hansen KB, and Traynelis SF.
Neuropharmacology (2013). 71:184-90.
35. **GluN1 splice variant control of GluN1/GluN2D NMDA receptors.**
Vance KM, Hansen KB, and Traynelis SF.
J Physiol (2012). 590(Pt 16):3857-75.
34. **Molecular pharmacology of human NMDA receptors.**
Hedegaard M, Hansen KB, Andersen KT, Bräuner-Osborne H, and Traynelis SF.
Neurochem Int (2012). 61(4):601-9.
33. **Subunit-selective allosteric inhibition of glycine binding to NMDA receptors.**
Hansen KB*, Ogden KK*, and Traynelis SF.
* Authors contributed equally to the work.
J Neurosci (2012). 32(18):6197-208.
32. **Mechanism for non-competitive inhibition by novel GluN2C/D NMDA receptor subunit-selective modulators.**
Acker TM, Yuan H, Hansen KB, Vance KM, Ogden KK, Jensen HS, Burger PB, Snyder JP, Liotta DC, and Traynelis SF.
Mol Pharm (2011). 80(5): 782-95.
31. **How glutamate receptor subunits mix and match: details uncovered (Previews).**
Hansen KB and Traynelis SF.
Neuron (2011). 71(2):198-200.
30. **Structural and mechanistic determinants of a novel site for non-competitive inhibition of GluN2D-containing NMDA receptors.**
Hansen KB and Traynelis SF.
J Neurosci (2011). 31(10):3650-61.
29. **The use of *Xenopus* oocytes in drug screening.**
Kvist T, Hansen KB, and Bräuner-Osborne H.
Expert Opin Drug Discov (2011). 6(2):141-53.
28. **Partial agonists and subunit-selectivity at NMDA receptors.**
Risgaard R, Hansen KB, and Clausen RP.
Chemistry (2010). 16(47):13910-8.
27. **A subunit-selective potentiator of NR2C- and NR2D-containing NMDA receptors.**
Mullasseril P, Hansen KB, Vance KM, Ogden KK, Yuan H, Kurtkaya NL, Santangelo R, Orr AG1, Le P, Vellano KM, Liotta D, and Traynelis SF.
Nat Commun (2010). 1:90.
26. **Glutamate receptor ion channels: structure, regulation, and function.**
Traynelis SF, Wollmuth LP, McBain CJ, Menniti FS, Vance KM, Ogden KK, Hansen KB, Yuan H, Myers SJ, and Dingledine RJ.
Pharmacol Rev (2010). 62(3):405-96.
25. **Quinazolin-4-one derivatives: a novel class of noncompetitive NR2C/D subunit-selective NMDA receptor antagonists.**
Mosley CA, Acker TM, Hansen KB, Mullasseril P, Andersen KT, Le P, Vellano KM, Bräuner-Osborne H, Liotta D, and Traynelis SF.

J Med Chem (2010). 53(15):5476-90.

24. **Novel 3-carboxy and 3-phosphono pyrazoline amino acids acting as potent and selective NMDA antagonists: Design, synthesis and pharmacological characterization.**
Conti P, Pinto A, Tamborini L, Madsen U, Nielsen B, Bräuner-Osborne H, [Hansen KB](#), Landucci E, Pellegrini Giampietro DE, De Sarro G, Di Paola ED, and De Micheli C.
ChemMedChem (2010). 5(9):1465-75.
23. **Control of assembly and function of glutamate receptors by the amino-terminal domain.**
[Hansen KB](#), Furukawa H, and Traynelis SF.
Mol Pharmacol (2010). 78(4):535-49.
22. **4-Hydroxy-1,2,5-oxadiazol-3-yl Moiety as Bioisoster of the Carboxy Function. Synthesis, Ionization Constants, and Molecular Pharmacological Characterization at Ionotropic Glutamate Receptors of Compounds Related to Glutamate and Its Homologues.**
Lolli ML, Giordano C, Pickering DS, Rolando B, [Hansen KB](#), Foti A, Contreras-Sanz A, Amir A, Fruttero R, Gasco A, Nielsen B, and Johansen T.
J Med Chem (2010). 53(10):4110-8.
21. **Implementation of a cell-based screening assay identifies H3 histamine receptor antagonists clobenpropit and iodophenpropit as subunit-selective NMDA receptor antagonists.**
[Hansen KB](#), Mullasseril P, Dawit S, Kurtkaya NL, Yuan H, Vance KM, Orr AG, Kvist T, Le P, Vellano KM, Lewis I, Kurtkaya S, Du Y, Qui M, Snyder JP, Bräuner-Osborne H, and Traynelis SF.
J Pharmacol Exp Ther (2010). 333(3):650-62.
20. **Mutational Mapping and Modeling of the Binding Site for (S)-Citalopram in the Human Serotonin Transporter.**
Andersen J, Olsen L, [Hansen KB](#), Taboureau O, Jørgensen FS, Jørgensen AM, Bang-Andersen B, Egebjerg J, Strømgaard K, and Kristensen AS.
J Biol Chem (2010). 285(3):2051-63.
19. **Control of NMDA receptor function by the NR2 subunit amino-terminal domain.**
Yuan H, [Hansen KB](#), Vance KM, Odgen KK, and Traynelis SF.
J Neurosci (2009). 29(39):12045-58.
18. **An allosteric binding site at the human serotonin transporter mediates the inhibition of escitalopram by R-citalopram: kinetic binding studies with the ALI/VFL-SI/TT mutant.**
Zhong H, [Hansen KB](#), Boyle NJ, Han K, Muske G, Huang X, Egebjerg J, and Morillo CS.
Neurosci Lett (2009). 462(3):207-12.
17. **Xenopus oocyte electrophysiology in GPCR drug discovery.**
[Hansen KB](#) and Bräuner-Osborne H.
Methods Mol Biol (2009). 552:343-57.
16. **FLIPR® assays of intracellular calcium in GPCR drug discovery.**
[Hansen KB](#) and Bräuner-Osborne H.
Methods Mol Biol (2009). 552:269-78.
15. **Location of the Antidepressant Binding Site in the Serotonin Transporter: Importance of ser-438 in recognition of citalopram and tricyclic antidepressants.**
Andersen J, Taboureau O, [Hansen KB](#), Olsen L, Egebjerg J, Strømgaard K, and Kristensen AS.
J Biol Chem (2009). 284(15):10276-84.
14. **Modulation of the dimer interface at ionotropic glutamate-like receptor $\delta 2$ by D-serine and extracellular calcium.**
[Hansen KB](#), Naur P, Kurtkaya NL, Kristensen AS, Gajhede M, Kastrop JS, and Traynelis SF.
J Neurosci (2009). 29(4):907-17.
13. **Stereocontrolled Synthesis and Pharmacological Evaluation of Azetidino-2,3-Dicarboxylic Acids at NMDA Receptors.**

Sivaprakasama M, Hansen KB, David O, Nielsen B, Traynelis SF, Clausen RP, Couty F, and Bunch L.
ChemMedChem (2009). 4(1):110-7.

12. **N-Hydroxypyrazol glycine derivatives as selective N-methyl-D-aspartic acid receptor ligands.**
Clausen RP, Christensen C, Hansen KB, Greenwood J, Jørgensen L, Micale N, Nielsen B, Egebjerg J, Bräuner-Osborne H, Traynelis SF, and Kristensen JL.
J Med Chem (2008). 51(14):4179-87.
11. **Pharmacological characterization of ligands at recombinant NMDA receptor subtypes by electrophysiological recordings and intracellular calcium measurements.**
Hansen KB, Bräuner-Osborne H, and Egebjerg J.
Comb Chem High Throughput Screen (2008). 11(4):304-15.
10. **Activation of recombinant rat NR1/NR2D N-methyl-D-aspartate (NMDA) receptors.**
Traynelis SF, Vance KM, and Hansen KB.
Soc Neurosci Abstr (2008). 38
9. **Quinazolin-4-one derivatives – a novel class of non competitive N-Methyl-D-Aspartate Receptor antagonists.**
Mullasseril P, Mosley C, Hansen KB, Yuan H, Kurtkaya NL, Vance KM, Orr A, Haustein KM, Le P, Wilson LJ, Liotta DC, and Traynelis SF.
Soc Neurosci Abstr (2008). 38
8. **Definition of the escitalopram binding pocket in the human serotonin transporter.**
Andersen J, Hansen KB, Jensen AA, Bang-Andersen B, Egebjerg J, Strømgaard K, and Kristensen AS.
Soc Neurosci Abstr (2007). 37
7. **Subunit-specific binding and agonist activity of glutamate and SYM2081 at NR2A and NR2D containing N-methyl-D-aspartate glutamate receptors.**
Geballe M, Hansen KB, Erreger K, Lee CJ, Kristensen AS, Chen PE, Wyllie DJ, Snyder JP, and Traynelis SF.
Soc Neurosci Abstr (2007). 37
6. **The amino terminal domain of the NR2 subunit controls channel open probability of N-methyl-D-aspartate receptors.**
Yuan H, Hansen KB, and Traynelis SF.
Soc Neurosci Abstr (2007). 37
5. **Subunit-specific activation of N-methyl-D-aspartate (NMDA) receptor subtypes by analogs of N-hydroxypyrazole-5-glycine (NHP5G).**
Vance KM, Hansen KB, Micale N, Clausen RP, and Traynelis SF.
Soc Neurosci Abstr (2007). 37
4. **Modulation of GluR δ 2 function by extracellular calcium.**
Hansen KB, Levasseur NL, Kristensen AS, Naur P, Kastrup JS, and Traynelis SF.
Soc Neurosci Abstr (2007). 37
3. **Identification of ligands capable of modulating the activity of the orphan glutamate-like receptor GluR δ 2 Lurcher mutant.**
Levasseur NL, Hansen KB, Kristensen AS, Naur P, Kastrup JS, and Traynelis SF.
Soc Neurosci Abstr (2007). 37
2. **Functional interaction between the serotonin transporter and ionotropic glutamate receptors.**
Hansen KB and Egebjerg J.
Benzon Symposium No. 51 - Neurotransmitter Transporters: Basal Function and Drug Targets (2004).
1. **Molecular pharmacology and modeling of (S)-2-Amino-3-(3-hydroxy-7,8-dihydro-6H-cyclohepta[d]isoxazol-4-yl)propionic acid, a potent and selective agonist at the GluR5 subtype of ionotropic glutamate receptors.**
Hansen KB, Brehm L, Greenwood JR, Nielsen B, Egebjerg J, Stensbøl TB, and Bräuner-Osborne H.
PhysPharm2003 - a Scandinavian Congress of Physiology and Pharmacology (2003).

Invited seminars and lectures

34. **7th Annual Glutamate Receptor Retreat, McGill University, Montreal, Canada, 2019.**
Seminar: *Subtype-specific modulation of NMDA receptors by glycine site agonists*
33. **University of Pittsburgh, Pittsburgh, PA, Department of Neuroscience, 2019.**
Seminar: *Subtype-specific modulation of NMDA receptors by glycine site agonists*
32. **University of Copenhagen, Copenhagen, Denmark, Department of Drug Design and Pharmacology, 2018.**
Seminar: *Investigations of ligand binding to NMDA receptors*
31. **7th Annual CoBRE Research Retreat, Seeley Lake, MT, 2018.**
Research presentation: *Resolving receptor subunit composition using FRET-FLIM*
30. **6th Annual CoBRE Research Retreat, Missoula, MT, 2017.**
Research presentation: *Investigations of ligand binding to NMDA receptors*
29. **Center for Structural and Functional Neuroscience, University of Montana, Missoula, MT, 2017.**
Seminar: *Investigations of ligand binding to NMDA receptors*
28. **50th Winter Conference on Brain Research, Big Sky, MT, 2017.**
Presenter and panel organizer
Panel: *Modulation of NMDA receptor signaling: From structure-function to physiology. Molecular mechanism of subunit-selective allosteric inhibition in NMDA receptors*
27. **Janssen (Johnson & Johnson), La Jolla, CA, 2017.**
Seminar: *Subunit-selective allosteric modulation of NMDA receptors*
26. **Vollum Institute, Oregon Health & Science University, Portland, OR, 2016.**
Seminar: *Structural Basis for Negative Allosteric Modulation of GluN2A-Containing NMDA Receptors*
25. **2016 LS Skaggs Biomedical Research Symposium, Idaho State, Pocatello, ID, 2016.**
Research presentation: *Structural basis for subunit-selective NMDA receptor antagonism in CNS disorders*
24. **5th Annual CoBRE Research Retreat, Missoula, MT, 2016.**
Research presentation: *Structural basis for negative allosteric modulation of NMDA receptors*
23. **University of Copenhagen, Copenhagen, Denmark, Department of Drug Design and Pharmacology, 2016.**
Seminar: *Structural basis for negative allosteric modulation of NMDA receptors*
22. **Lundbeck, Copenhagen, Denmark, 2016.**
Seminar: *Structural basis for negative allosteric modulation of NMDA receptors*
21. **4th Annual CoBRE Research Retreat, Seeley Lake, MT, 2015.**
Seminar: *Negative allosteric modulation of NMDA receptors*
20. **3rd Annual Glutamate Receptor Retreat, University of Albany SUNY, Albany, NY, 2015.**
Seminar: *Negative allosteric modulation of GluN2A-containing NMDA receptors*
19. **University of Buffalo SUNY, Buffalo, NY, Department of Biochemistry, 2015.**
Seminar: *Subtype-selective allosteric inhibition of NMDA receptors*
18. **48th Winter Conference on Brain Research, Big Sky, MT, 2015.**
Presenter and panel organizer
Panel: *Recent developments in NMDA receptor research: From structure-function to physiology. Triheteromeric and GluN3A-containing NMDA receptors*
17. **Montana State University, Bozeman, MT, Department of Cell Biology and Neuroscience, 2014.**

Seminar: *Subtype-selective allosteric inhibition of NMDA receptors*

16. **3rd Annual CoBRE Research Retreat, Seeley Lake, MT, 2014.**
Seminar: *Structural and functional analysis of GluN3-containing NMDA receptors.*
15. **Naurex, Evanston, IL, 2014.**
Seminar: *Modulation of NMDA receptor function by subunit-selective ligands*
14. **Novartis Institutes for Biomedical Research, Cambridge, MA, 2014.**
Seminar: *Modulation of NMDA receptor function by subunit-selective ligands*
13. **1st Annual Glutamate Receptor Retreat, Cornell University, Ithaca, NY, 2013.**
Seminar: *Functional and pharmacological properties of triheteromeric GluN1/GluN2A/GluN2B NMDA receptors*
12. **University of Montana, Missoula, MT, Department of Biomedical & Pharmaceutical Sciences, 2013.**
Seminar: *Modulation of NMDA receptor function by subunit-selective ligands*
11. **46th Winter Conference on Brain Research, Breckenridge, CO, 2013.**
Presenter and panel organizer
Panel: New insights into the pharmacology and physiology of triheteromeric NMDA receptors.
Pharmacology of triheteromeric GluN1/GluN2A/GluN2B NMDA receptors
10. **Emory University School of Medicine, Atlanta, GA, Department of Anesthesiology, 2012.**
Anesthesiology Grand Rounds
Structure, Function, and Physiology of NMDA Receptors
9. **University of Copenhagen, Denmark, Faculty of Health and Medical Sciences, 2012.**
GluTarget Symposium. Session: Allosteric modulators of iGluRs.
Modulation of NMDA receptor function by subunit-selective ligands
8. **45th Winter Conference on Brain Research, Snowbird, UT, 2012.**
Presenter and panel organizer
Panel: New insights to modulation of ionotropic glutamate receptor function.
Subtype-selective allosteric inhibition of NMDA receptors.
7. **International Society for Neurochemistry Satellite Meeting “The Glutamatergic Synapse”, Crete, Greece, 2011.**
Session: Glutamate receptor structure, pharmacology and electrophysiology.
Modulation of NMDA receptor function by subunit-selective ligands.
6. **44th Winter Conference on Brain Research, Keystone, CO, 2011.**
Panel: New approaches to modulation of NMDA receptor gating.
GluN2C/D-selective NMDA receptor modulators: Structural and mechanistic determinants.
5. **43th Winter Conference on Brain Research, Breckenridge, CO, 2010.**
Panel: NMDA Receptor from Biophysics to Disease.
Control of NMDA receptor function by the amino terminal domain.
4. **Emory University School of Medicine, Atlanta, GA, Department of Pharmacology, 2009.**
Calcium Club Seminar.
Modulation of the ionotropic glutamate-like receptor $\delta 2$ and the metabotropic receptor GPRC6A by extracellular calcium.
3. **Society for Neuroscience, 2008.**
Symposium: Non-NMDA Glutamate Receptors: Structure and Physiology.
Modulation of the dimer interface at ionotropic glutamate-like receptor $\delta 2$ by extracellular calcium.
2. **Danish University of Pharmaceutical Sciences, 2006.**
Symposium: Receptor Structure and Function.

How small ligands can activate large protein complexes: Structure and function of ion channels.

1. **Danish University of Pharmaceutical Sciences, 2005.**

Symposium: Day of Research.

Studies on the structural basis for activation of NMDA receptors.

Committee Involvement

- **University of Montana (current member)**
 - Institutional Animal Care and Use Committee (IACUC) (January 2018 – present)
 - Internal Advisory Committee - Center for Biomolecular Structure and Dynamics (CBSD) (Fall 2017 - present)
 - Admissions Committee (Chair) - Neuroscience Graduate Program (Spring 2016 - present)
 - Graduate Standards and Curriculum Committee - PSDD Graduate Program (Summer 2015 – present)
 - Search Committee - CBSD core facility manager (Fall 2019 – present)
- **University of Montana (previous member)**
 - Skaggs School of Pharmacy Dean Search Committee - School of Pharmacy (Fall 2019)
 - Faculty Search Committee - CMMB and Neuroscience programs (Fall 2019 – Spring 2020)
 - Search Committee - Director of Research Compliance and Technology Transfer (Fall 2019 – Spring 2020)
 - Academic Standards Committee – School of Pharmacy (2014 - 2019)
 - Research Council (advisory body on matters pertaining to research and creative activities) (2018 - 2020)
 - Admissions Committee - Neuroscience Graduate Program (Spring 2015)
 - Admissions Committee - Biochemistry & Biophysics Graduate Program (Spring 2015 – Spring 2016)
 - Unit Standards Committee - Department of Biomedical and Pharmaceutical Sciences (2014 - 2015)
 - Faculty Search Committee - Department of Biomedical and Pharmaceutical Sciences (Fall 2014 – Spring 2015)
 - Website Committee - Department of Biomedical and Pharmaceutical Sciences (2015 - 2016)
- **Professional Organizations (current member)**
 - Committee for Professional Opportunities for Women (CPOW) - Biophysical Society (July 2018 – present)

Mentoring Experience

- 2020-present: Advisor for Pharm Sci and Drug Design Ph.D. student James Lotti, "*TBD*" (University of Montana, MT).
- 2020-present: Advisor for Neuroscience Ph.D. student Carly Anderson, "*TBD*" (University of Montana, MT).
- 2018-present: Advisor for Neuroscience Ph.D. student Nirvan Rouzbeh, "*TBD*" (University of Montana, MT).
- 2017-2019: Advisor for Neuroscience Ph.D. student Jill Farnsworth, "*Negative allosteric modulation of NMDA receptors with GluN2A gain-of-function mutations*" (University of Montana, MT).
- 2017-2018: Advisor for Neuroscience M.Sc. student Janet Bobango, "*Structural Studies on Ligand Binding to Neurotransmitter Receptors*" (University of Montana, MT).
- 2017-2018: Mentor for Postdoctoral Fellow Linda G. Zachariassen (University of Montana, MT).
- 2016 and 2017: Advisor for CSFN Summer Undergraduate Research Fellow Elijah Ullman (University of Montana, MT).
- 2015-present: Mentor for Postdoctoral Fellow Feng Yi (University of Montana, MT).
- 2015-2017: Advisor for Ph.D. student Genevieve Lind, "*Modulation of NMDA receptor-mediated synaptic transmission*" (University of Montana, MT).
- 2014-2018: Co-advisor for Ph.D. student Maja Jessen, "*Modulation of glutamate NMDA receptors by glycine site ligands*" (University of Copenhagen, Denmark).
- 2010-2013: Co-advisor for Ph.D. student Trine Kvist Carlino, "*Novel Pharmacological Modulators of NMDA Receptors*" (University of Copenhagen, Denmark).
- 2010: Co-advisor for master's student Maiken Hedegaard, "*Electrophysiological Comparison of Human and Rat N-methyl-D-Aspartate Receptors and Characterization of Novel and Classical Compounds*" (University of Copenhagen, Denmark).
- 2008: Co-advisor for master's student Karen T. Andersen, "*Identification and Characterization of Novel Subtype Selective NMDA Receptor Ligands*" (University of Copenhagen, Denmark).

2004: Co-advisor for master's student Christian Bechmann, "*Molecular Pharmacological Characterization of Cloned NMDA Receptors*" (University of Copenhagen, Denmark).

Graduate Student Committees

2019-present: Emily Osterli, MSc student, Pharmaceutical Sciences and Drug Design Program (University of Montana, MT).
 2018-present: Denis Shchepakina, PhD student, Neuroscience Program (University of Montana, MT).
 2018-present: Eric John, PhD student, Chemistry Program (University of Montana, MT).
 2017-2019: Lindsay Achzet, PhD student, Neuroscience Program (University of Montana, MT).
 2016-2019: Joachim Veit, PhD student, Pharmaceutical Sciences and Drug Design Program (University of Montana, MT).
 2016-present: Xiaobo Wang, PhD student, Cellular, Molecular and Microbial Biology Program (University of Montana, MT).

Teaching Experience

Spring 2020: BMED 615 "Molecular Pharmacology": Course for PhD students (University of Montana).
 Spring 2020: BCH 294 "Intro Biochemistry Seminar": Course for undergraduate students (University of Montana).
 Fall 2019: PHAR 421 "Medicinal Chemistry I": Course for PharmD students (University of Montana Skaggs School of Pharmacy).
 Fall 2019: PHAR 371 "Integrated Studies I": Course for PharmD students (University of Montana Skaggs School of Pharmacy).
 Fall 2019: BIOH 458 "Neuroscience Research": Lab course for Neuroscience undergraduate students (University of Montana).
 Fall 2019: CHS 194 "H&S Freshman Seminar": Course for undergraduate students (University of Montana).
 Spring 2019: BCH 294 "Intro Biochemistry Seminar": Course for undergraduate students (University of Montana).
 Spring 2019: PHAR 372 "Integrated Studies II": Course for PharmD students (University of Montana Skaggs School of Pharmacy).
 Fall 2018: PHAR 421 "Medicinal Chemistry I": Course for PharmD students (University of Montana Skaggs School of Pharmacy).
 Fall 2018: PHAR 371 "Integrated Studies I": Course for PharmD students (University of Montana Skaggs School of Pharmacy).
 Fall 2018: BIOH 458 "Neuroscience Research": Lab course for Neuroscience undergraduate students (University of Montana).
 Fall 2018: BIOH 441 "CNS Diseases ": Course for Neuroscience undergraduate and graduate students (University of Montana).
 Spring 2018: BCH 294 "Intro Biochemistry Seminar": Course for undergraduate students (University of Montana).
 Spring 2018: PHAR 372 "Integrated Studies II": Course for PharmD students (University of Montana Skaggs School of Pharmacy).
 Spring 2018: BMED 615 "Molecular Pharmacology": Course for PhD students (University of Montana).
 Fall 2017: PHAR 421 "Medicinal Chemistry I": Course for PharmD students (University of Montana Skaggs School of Pharmacy). *Voted "Teacher of the Month" by the Rho Chi Society (Academic Honor Society in Pharmacy) (November 2017)*
 Fall 2017: PHAR 371 "Integrated Studies I": Course for PharmD students (University of Montana Skaggs School of Pharmacy).
 Fall 2017: BIOH 458 "Neuroscience Research": Lab course for Neuroscience undergraduate students (University of Montana).
 Fall 2017: BMED 661 "Neuroscience I": Course for PhD students (University of Montana). *Course co-coordinator*
 Spring 2017: BCH 294 "Intro Biochemistry Seminar": Course for undergraduate students (University of Montana).
 Spring 2017: PHAR 372 "Integrated Studies II": Course for PharmD students (University of Montana Skaggs School of Pharmacy).
 Fall 2016: PHAR 421 "Medicinal Chemistry I": Course for PharmD students (University of Montana Skaggs School of Pharmacy). *Voted "Teacher of the Month" by the Rho Chi Society (Academic Honor Society in Pharmacy) (November 2016)*
 Fall 2016: PHAR 371 "Integrated Studies I": Course for PharmD students (University of Montana Skaggs School of Pharmacy).

- Spring 2016: BCH 294 "Intro Biochemistry Seminar": Course for undergraduate students (University of Montana).
- Spring 2016: BMED 624 "Methods in Medicinal Chemistry": Course for PhD students (University of Montana).
- Spring 2016: PHAR 372 "Integrated Studies II": Course for PharmD students (University of Montana Skaggs School of Pharmacy).
- Fall 2015: PHAR 421 "Medicinal Chemistry I": Course for PharmD students (University of Montana Skaggs School of Pharmacy).
- Fall 2015: BMED 615 "Molecular Pharmacology": Course for PhD students (University of Montana).
- Fall 2015: PHAR 371 "Integrated Studies I": Course for PharmD students (University of Montana Skaggs School of Pharmacy).
- Spring 2015: PHAR 372 "Integrated Studies II": Course for PharmD students (University of Montana Skaggs School of Pharmacy).
- Spring 2015: PHAR 362 "Pharmaceutical Sciences Laboratory II": Lab course for PharmD students (University of Montana Skaggs School of Pharmacy).
- Fall 2014: PHAR 421 "Medicinal Chemistry I": Course for PharmD students (University of Montana Skaggs School of Pharmacy).
- 2012: IBS 555 "Basic Biomedical and Biological Sciences I": Course for graduate students (Emory University).
- 2011: Ion Channel Physiology: Course for postdocs and graduate students (Cold Spring Harbor Laboratory Course).
- 2010: Ion Channel Physiology: Course for postdocs and graduate students (Cold Spring Harbor Laboratory Course).
- 2009: Ion Channel Physiology: Course for postdocs and graduate students (Cold Spring Harbor Laboratory Course).
- 2009: IBS 531 "Principles and Approaches to Pharmacology": Course for graduate students (Emory University).
- 2007: Medicinal chemistry: Course for undergraduate pharmacy students (University of Copenhagen, Denmark).
- 2006: Lecturer in "Receptor Structure and Function"
Course for graduate students (University of Copenhagen, Denmark).
- 2005: Advanced Techniques in Molecular Pharmacology: Course for Ph.D. students (University of Copenhagen, Denmark).
- 2004: Medicinal chemistry: Course for undergraduate pharmacy students (University of Copenhagen, Denmark).
- 2003: Medicinal chemistry: Course for undergraduate pharmacy students (University of Copenhagen, Denmark).