Andrew S. Felts, Ph.D.

Associate Director of Medicinal Chemistry

Vanderbilt Center for Neuroscience Drug Discovery

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PROFESSIONAL EXPERIENCE

Vanderbilt Center for Neuroscience Drug Discovery **2008 – Present**

Research Instructor – Department of Pharmacology

Group Leader – $mGlu_1$ NAM, $mGlu_2$ NAM, $mGlu_3$ NAM, $mGlu_5$ NAM, $mGlu_4$ PAM, GLP1 PAM, M5 NAM

- Currently directing the M5 NAM program and co-directing the $mGlu_1$ PAM program at hit to lead stage
- Directed the medicinal chemistry effort for the research alliance between Bayer and the Vanderbilt University Medical Center to develop therapies for a variety of kidney diseases
- Worked as group leader and lead chemist for the development of a pre-clinical candidate for our $mGlu_4$ PAM
- Worked as lead chemist on $mGlu_2$ NAM project in hit-to-lead optimization stage with two novel and selective, drug-like chemotypes
- Lead optimization of allosteric modulators of mGlu for the treatment of CNS disorders
- Played a key role in all aspects of $mGlu_5$ NAM project from hit identification to lead optimization, ultimately leading to the delivery of a clinical candidate
- Identified and optimized a customized purification method for the removal of a difficult impurity in the final synthetic step of the $mGlu_5$ NAM clinical candidate
- Successfully delivered high-purity multi-gram quantity (20+g) scale-ups of $mGlu_5$ NAM clinical candidate and back-up compounds for pre-clinical development
- Simultaneously developed rapid SAR on multiple scaffolds for $mGlu_1$ and $mGlu_5$ NAMs that were instrumental in eventual lead identification
- Helped progress multiple novel chemotypes in the $mGlu_3$ NAM program which ultimately led to the first in class potent and selective in vivo probe
- Core competencies in synthetic organic and medicinal chemistry, parallel synthetic techniques, hit to lead optimization, SAR hypothesis generation, PK/PD and ADME interpretation, large scale molecule synthesis, date interpretation and scientific writing
- Substantially contributed to 5 patents/patent applications and 21 publications
- Informally mentored incoming junior scientists

ACADEMIC EXPERIENCE

Vanderbilt University **2007 – 2008**

Post-Doctoral Research Fellow – Department of Biochemistry

Mentor – Lawrence J. Marnett

- Designed and developed selective COX-2 imaging agents for the identification of murine tumors and inflammatory lesions
- Continued work in the synthesis and characterization of NSAIDs as anti-tumor agents

EDUCATION

Vanderbilt University **2002 – 2007**
Graduate Thesis – Department of Chemistry
Mentor – Lawrence J. Marnett
"Re-Design of Indomethacin and Sulindac Derivatives As Anti-Tumor Agents"

- Acquired chemistry-biology interface training grant
- Effectively modified a variety of NSAIDs to remove their cyclooxygenase inhibitory activity while retaining their off-target activity (anti-tumor activity, PPARγ activation)
- Fully developed SAR around *des*-methyl sulindac sulfide and performed extensive studies to determine the site and mode of action of its anti-tumorigenic properties
- Developed synthetic chemistry skills through the synthesis and derivatization of a variety of NSAIDs
- Identified and synthesized a novel derivative of indomethacin with COX-2 selective inhibition
- Acquired a variety of biochemistry skills including protein gel electrophoresis and radioligand binding assays
- Directed undergraduate and incoming graduate students with research projects

Florida State University **2000 – 2002**
Undergraduate Research Student
Department of Chemistry
Mentor – Marie E. Krafft
"Asymmetric Induction in the Pauson-Khand Reaction"

- Developed a chiral acetal auxiliary that imparted selective asymmetry in the Pauson-Khand reaction
- Solved outstanding racemization problem occurring in key step of acetal removal

B.S. Chemistry
Cum Laude

University of Tennessee at Knoxville **1997-2000**
Department of Psychology
B.A. Psychology

GRANTS AND AWARDS

Vanderbilt University

- Vanderbilt-Ingram Cancer Center Retreat, Honorable Mention (2008)
- Chemistry-Biology Interface Training Grant (2003) T32 GM065086

Florida State University

- Merck Index Award (2002)

PROFESSIONAL AFFLILIATIONS

The American Chemical Society (ACS)

ISSUED UNITED STATES PATENTS

1. Negative Allosteric Modulators of Metabotropic Glutamate Receptor 2. Conn, P. J.; Lindsley, C. W.; Emmitte, K. A.; **Felts, A. S**.; Bollinger, K A. U.S. PCT Appl. **2017**, US 2018/072674.

2. Benzomorpholine and Benzomorpholine-substituted Compounds as mGluR4 Allosteric Potentiators, Compositions, and Methods of Treating Neurological Dysfunction. Conn, P. J.; Lindsley, **Felts, A. S.** U.S. PCT Appl. **2017**, US 2018/057490.

3. Isoquinoline Amide and Isoquinoline Amide-substituted Compounds as mGluR4 Allosteric Potentiators, Compositions, and Methods of Treating Neurological Dysfunction. Conn, P. J.; Lindsley, C. W.; Hopkins, C. R.; **Felts, A. S.**; Bender, A. M. U.S. PCT Appl. **2017**, US 2018/057491.

4. Positive Allosteric Modulators of the Muscarinic Acetylcholine Receptor M4. Lindsley, C. W.; Conn, P. J.; Engers, D. W.; Jones, C. K.; Bridges, T. M.; Changho, H.; **Felts, A. S.** U.S. PCT Appl. **2017**, US 2018/028501.

5. Substituted 4-Alkoxypicolinamide Analogs as mGluR5 Negative Allosteric Modulators and Methods of Using the Same. Emmitte, K. A.; Lindsley, C. W.; Conn, P. J.; **Felts, A.** Bollinger, K A. U.S. PCT Appl. **2015**, US 2017/247366.

6. Substituted Imidazopyridine and Triazolopyridine Compounds as Negative Allosteric Modulators of mGluR5. Emmitte, K. A.; Lindsley, C. W.; Conn, P. J.; **Felts, A.** Rodriguez, A. L.; Smith, K A.; Jones C. K. U.S. PCT Appl. **2014**, US 2016/289227.

7. Negative Allosteric Modulators of Metabotropic Glutamate Receptor 2. Conn, P. J.; Lindsley, C. W.; Emmitte, K. A.; **Felts, A. S**.; Bollinger, K A. U.S. PCT Appl. **2016**, US 2016/214940.

8. Substituted 6-Aryl-imidazopyridine and 6-Aryl-triazolopyridine Carboxamide Analogs as Negative Allosteric Modulators of mGluR5. Emmitte, K. A.; Lindsley, C. W.; Conn, P. J.; **Felts, A. S**.; Smith, K. A. U.S. PCT Appl. **2015**, US 2016/096833.

9. Substituted Bicyclic Heteroaryl Carboxamide Analogs As Mglur5 Negative Allosteric Modulators. Conn, P. J.; Lindsley, C. W.; Emmitte, K. A.; **Felts, A. S**. U.S. PCT Appl. **2015**, US 2015/266866.

10. Substituted Heteroarylamide Analogs As mGluR5 Negative Allosteric Modulators and Methods of Making and Using the Same. Conn, P. J.; Lindsley, C. W.; Emmitte, K. A.; Weaver, C. D.; Rodriguez, A. L.; **Felts, A. S.**; Jones, C. K.; Bates, B. S. U.S. PCT Appl. **2010**, US 2011/172248.

11. Substituted Heteroarylamine Carboxamide Analogs As mGluR5 Negative Allosteric Modulators and Methods of Making and Using the Same. Conn, P. J.; Lindsley, C. W.; Emmitte, K. A.; Weaver, C. D.; Rodriguez, A. L.; **Felts, A. S.**; Jones, C. K.; Bates, B. S. U.S. PCT Appl. **2010**, US 2011/172247.

12. Substituted Phenylamine Carboxamide Analogs As mGluR5 Negative Allosteric Modulators and Methods of Making and Using the Same. Conn, P. J.; Lindsley, C. W.; Emmitte, K. A.; Weaver, C. D.; Rodriguez, A. L.; **Felts, A. S.**; Jones, C. K.; Bates, B. S.; Chauder, B. A. U.S. PCT Appl. **2010**, US 2011/166158.

13. Indoleacetic Acid and Indenacetic Acid Derivatives as Therapeutic Agents With Reduced Gastrointestinal Toxicity. Marnett, L. J.; Prusakiewicz, J. J.; **Felts, A. S**.; and Ji, C. U.S. PCT Appl. **2009**, US 2009/118290.

PUBLISHED INTERNATIONAL PATENT APPLICATIONS

.

1. Isoquinoline Ether Compounds as mGluR4 Allosteric Potentiators, Compositions, and Methods of Treating Neurological Dysfunction. Conn, P. J.; Lindsley, C. W.; **Felts, A. S.**; Blobaum, A L. PCT Int. Appl. **2017**, WO 2018/089546.

2. Isoquinoline Amine Compounds as mGluR4 Allosteric Potentiators, Compositions, and Methods of Treating Neurological Dysfunction. Conn, P. J.; Lindsley, C. W.; **Felts, A. S.** PCT Int. Appl. **2017**, WO 2018/089544.

3. 6-Alkyl-*N*-(pyridin-2-yl)-4-aryloxypicolinamide Analogs As mGluR5 Negative Allosteric Modulators and Methods of Making and Using the Same. Conn, P. J.; Lindsley, C. W.; Emmitte, K. A.; Rodriguez, A. L.; **Felts, A. S.**; Jones, C. K.; Bates, B. S.; Chauder, B. A. PCT Int. Appl. **2012**, WO 2012/118563.

4. Substituted Benzamide Analogs As mGluR5 Negative Allosteric Modulators and Methods of Making and Using the Same. Conn, P. J.; Lindsley, C. W.; Emmitte, K. A.; Weaver, C. D.; Rodriguez, A. L.; **Felts, A. S.**; Jones, C. K.; Bates, B. S. PCT Int. Appl. **2010**, WO 2011/035209.

5. Substituted Heteroarylamide Analogs as mGluR5 Negative Allosteric Modulators and Methods of Making and Using the Same. Conn, P. J.; Lindsley, C. W.; Emmitte, K. A.; Weaver, C. D.; Rodriguez, A. L.; **Felts, A. S.**; Jones, C. K.; Bates, B. S. PCT Int. Appl. **2010**, WO 2011/035186.

6. Substituted Heteroarylamine Carboxamide Analogs As mGluR5 Negative Allosteric Modulators and Methods of Making and Using the Same. Conn, P. J.; Lindsley, C. W.; Emmitte, K. A.; Weaver, C. D.; Rodriguez, A. L.; **Felts, A. S.**; Jones, C. K.; Bates, B. S. PCT Int. Appl. **2009**, WO 2011/035174.

PUBLICATIONS

1. Discovery of 4-alkoxy-6-methylpicolinamide negative allosteric modulators of metabotropic glutamate receptor subtype 5. **Felts A. S.**; Bollinger, K. A.; Brassard, C. J.; Rodriguez, A. L.; Morrison R. D.; Daniels J. S.; Blobaum A. L.; Niswender C. M.; Jones C. K.; Conn P. J.; Emmitte K. A.; Lindsley C. W. *Bioorg Med Chem Lett.* Submitted.

2. Discovery of VU2957 (Valiglurax): An mGlu4 Positive Allosteric Modulator Evaluated as a Preclinical Candidate for the Treatment of Parkinson's Disease. Panarese, J. D.; Engers, D. W.; Wu, Y.; Bronson, J. J.; Macor, J. E.; Chun, A.; Rodriguez, A. L.; **Felts A. S.**; Engers, J. L.; Emmitte K. A.; Castelhano, A. L.; Kates, M. J.; Jones C. K.; Blobaum A. L.; Conn P. J.; Niswender C. M.; Hopkins, C. R.; Lindsley C. W. *ACS Med Chem Lett*. Submitted.

3. Discovery of 6-(Pyrimidin-5-ylmethyl)quinoline-8-carboxamide Negative Allosteric Modulators of Metabotropic Glutamate Receptor Subtype 5. **Felts A. S.**; Rodriguez A. L.; Morrison R. D.; Blobaum A. L.; Byers, F.W.; Daniels, J.S.; Niswender C. M.; Conn P. J.; Lindsley C. W.; Emmitte K. A. *Bioorg Med Chem Lett.* **2018**, 28, 1679-85. [PMID: 29705142]

4. Differential Pharmacology and Binding of $mGlu_2$ Receptor Allosteric Modulators. O'Brien D. E.; Shaw D.M.; Cho H. P.; Cross A. J.; Wesolowski S. S.; **Felts A. S.**; Bergare J.; Elmore C. S.; Lindsley C. W.; Niswender C. M.; Conn P. J. *Mol Pharmacol*. **2018**, 93, 526-40. [PMID: 29545267]

5. Discovery of Imidazo[1,2-a]-, [1,2,4]triazolo[4,3-a]-, and [1,2,4]Triazolo[1,5-a]pyridine-8-carboxamide Negative Allosteric Modulators of Metabotropic Glutamate Receptor Subtype 5. **Felts A. S**.; Rodriguez A. L.; Morrison R. D.; Bollinger K. A.; Venable D. F.; Blobaum A. L.; Byers F. W.; Thompson Gray A.; Daniels J. S.; Niswender C. M.; Jones C. K.; Conn P. J.; Lindsley C. W.; Emmitte K. A. *Bioorg Med Chem Lett.* **2017**, 27, 4858-66. [PMID: 28958625]

6. Design and Synthesis of $mGlu_2$ NAMs with Improved Potency and CNS Penetration Based on a Truncated Picolinamide Core. Bollinger K. A.; **Felts A. S**.; Brassard C. J.; Engers J. L.; Rodriguez A. L.; Weiner R. L.; Cho H. P.; Chang S.; Bubser M.; Jones C. K.; Blobaum A. L.; Niswender C. M.; Conn P. J.; Emmitte K. A.; Lindsley C. W. *ACS Med Chem Lett.* **2017** 8, 919-24. [PMID: 28947937]

7. Species-Specific Involvement of Aldehyde Oxidase and Xanthine Oxidase in the Metabolism of the Pyrimidine-Containing $mGlu_5$-Negative Allosteric Modulator VU0424238 (Auglurant). Crouch R. D.; Blobaum A. L.; **Felts A. S**.; Conn P. J.; Lindsley C. W. *Drug Metab Dispos.* **2017**, 45, 1245-59. [PMID: 28939686]

8. Discovery of N-(5-Fluoropyridin-2-yl)-6-methyl-4-(pyrimidin-5-yloxy)picolinamide (VU0424238): A Novel Negative Allosteric Modulator of Metabotropic Glutamate Receptor Subtype 5 Selected for Clinical Evaluation. **Felts, A.S.**; Rodriguez, A.L.; Blobaum, A.L.; Morrison, R.D.; Bates, B.S.; Thompson, Gray A.; Rook, J.M.; Tantawy, M.N.; Byers, F.W.; Chang, S.; Venable, D.F.; Luscombe, V.B.; Tamagnan, G.D.; Niswender, C.M.; Daniels, J.S.; Jones, C.K.; Conn, P.J.; Lindsley, C.W.; Emmitte, K.A. *J. Med. Chem.* **2017**, *60*, 5072-85. [PMID: 28530802]

9. N-Alkylpyrido[1',2':1,5]pyrazolo-[4,3-d]pyrimidin-4-amines: A new series of negative allosteric modulators of mGlu1/5 with CNS exposure in rodents. **Felts, A. S.**; Rodriguez, A. L.; Morrison, R. D.; Venable, D. F.; Blobaum, A. L.; Byers, F. W.; Daniels, J. S.; Niswender, C. M.; Jones, C. K.; Conn, P. J.; Lindsley, C. W.; Emmitte, K. A. *Bioorg. Med. Chem. Lett.* **2016**, *26*, 1894-1900. [PMID: 26988308]

10. Design of 4-Oxo-1-aryl-1,4-dihydroquinoline-3-carboxamides as Selective Negative Allosteric Modulators of Metabotropic Glutamate Receptor Subtype 2. **Felts, A. S.**; Rodriguez, A. L.; Smith, K. A.; Engers, J. L.; Morrison, R. D.; Byers, F. W.; Blobaum, A. L.; Locuson, C. W.; Chang, S.; Venable, D. F.; Niswender, C. M.; Daniels, J. S.; Conn, P. J.; Lindsley, C. W.; Emmitte, K. A. *J. Med. Chem.* **2015**, *58*, 9027-40. [PMID: 26524606]

11. Partial $mGlu_5$ Negative Allosteric Modulators Attenuate Cocaine-Mediated Behaviors and Lack Psychotomimetic-Like Effects. Gould, R. W.; Amato, R. J.; Bubser, M.; Joffe, M. E.; Nedelcovych, M. T.; Thompson, A. D.; Nickols, H. H.; Yuh, J. P.; Zhan, X.; **Felts, A.S.**; Rodriguez, A. L.; Morrison, R. D.; Byers, F. W.; Rook, J. M.; Daniels, J. S.; Niswender, C. M.; Conn, P. J.; Emmitte, K. A.; Lindsley, C. W.; Jones, C. K. *Neuropsychopharmacology*, 2015 Aug 28. [PMID: 26315507]

12. Relationship Between in vivo Receptor Occupancy and Efficacy of Metabotropic Glutamate Receptor Subtype 5 Allosteric Modulators with Different in vitro Binding Profiles. Rook, J. M.; Tantawy, M. N.; Ansari, M. S.; **Felts, A. S.**; Stauffer, S. L.; Emmitte, K. A.; Kessler, R. M.; Niswender, C. M.; Daniels, J. S.; Jones, C. K.; Lindsley, C. W.; Conn, P. J. *Neuropsychopharmacology*, 2014 Sep 22. [PMID: 25241804]

13. Discovery of VU0431316: A Negative Allosteric Modulator of $mGlu_5$ with Activity in a Mouse Model of Anxiety. Bates, B. S.; Rodriguez, A. L.; **Felts, A. S.**; Morrison, R. D.; Venable, D. F.; Blobaum, A. L.; Byers, F. W.; Lawson, K. P.; Daniels, J. S.; Niswender, C. M.; Jones, C. K.; Conn, P. J.; Lindsley, C. W.; Emmitte, K. A. *Bioorg. Med. Chem. Lett.* **2014**, *24*, 3307–3314. [PMID: 24969015]

14. Novel GlyT1 inhibitor chemotypes by scaffold hopping. Part 1: development of a potent and CNS penetrant [3.1.0]-based lead. Jones, C. K.; Sheffler, D.J.; Williams, R.; Jadhav, S.B.; **Felts, A.S**.; Morrison, R.D.; Niswender, C.M.; Daniels, J.S.; Conn, P.J.; Lindsley, C.W. *Bioorg. Med. Chem. Lett.* **2014**, *24*, 1067-1070. [PMID: 24461352]

15. Discovery of VU0409106: A Negative Allosteric Modulator of $mGlu_5$ with Activity in a Mouse Model of Anxiety. **Felts, A. S.**; Rodriguez, A. L.; Morrison, R. D.; Venable, D. F.; Manka, J. T.; Bates, B. S.; Blobaum, A. L.; Byers, F. W.; Daniels, J. S.; Niswender, C. M.; Jones, C. K.; Conn, P. J.; Lindsley, C. W.; Emmitte, K. A. *Bioorg. Med. Chem. Lett.* **2013**, *23*, 5779–5785 [PMID: 24074843].

16. Discovery of (*R*)-(2-Fluoro-4-((4-methoxyphenyl)ethynyl)phenyl) (3-Hydroxypiperidin-1-yl)methanone (ML337), An $mGlu_3$ Selective and CNS Penetrant Negative Allosteric Modulator (NAM). Wenthur, C. J.; Morrison, R.; **Felts, A. S.**; Smith, K. A.; Engers, J. L.; Byers, F. W.; Daniels,

J. S.; Emmitte, K. A.; Conn, P. J.; Lindsley, C. W. *J. Med. Chem.* **2013**, *56*, 5208–5212. [PMID: 23718281]

17. *N*-Acyl-*N'*-arylpiperazines as Negative Allosteric Modulators of $mGlu_1$: Identification of VU0469650, a Potent and Selective Tool Compound with CNS Exposure in Rats. Lovell, K. M.; **Felts, A. S.**; Rodriguez, A. L.; Venable, D. F.; Cho, H. P.; Morrison, R. D.; Byers, F. W.; Daniels, J. S.; Niswender, C. M.; Conn, P. J.; Lindsley, C. W.; Emmitte, K. A. *Bioorg. Med. Chem. Lett.* **2013**, *23*, 3713–3718. [PMID: 23727046]

18. The 2'-Trifluoromethyl Analogue of Indomethacin Is a Potent and Selective COX-2 Inhibitor. Blobaum, A.L.; Uddin, M.J.; **Felts, A.S**.; Crews, B.C.; Rouzer, C.A.; Marnett, L,J. *ACS Med. Chem.* **2013**, *4*, 486-490. [PMID: 23687559]

19. Substituted 1-Phenyl-3-(pyridin-2-yl)urea Negative Allosteric Modulators of $mGlu_5$: Discovery of a New Tool compound VU0463841 with Activity in Rat Models of Cocaine Addiction. Amato, R. J.; **Felts, A. S.**; Rodriguez, A. L.; Venable, D. F.; Morrison, R. D.; Byers, F. W.; Daniels, J. S.; Niswender, C. M.; Conn, P. J.; Lindsley, C. W.; Jones, C. K.; Emmitte, K. A. *ACS Chem. Neurosci.* **2013**, *4*, 1217–1228. [PMID: 23682684]

20. Investigating Metabotropic Glutamate Receptor 5 Allosteric Modulator Cooperativity, Affinity, and Agonism: Enriching Structure-Function Studies and Structure-Activity Relationships. Gregory, K. J.; Noetzel, M. J.; Rook, J. M.; Vinson, P. N.; Stauffer, S. L.; Rodriguez, A. L.; Emmitte, K. A.; Zhou, Y.; Chun, A. C.; **Felts, A. S.**; Chauder, B. A.; Lindsley, C. W.; Niswender, C. M.; Conn, P. J. *Mol. Pharmacol.* **2012**, *82*, 843–859. [PMID: 22863693]

21. The Role of Aldehyde Oxidase and Xanthene Oxidase in the Biotransformation of a Novel Negative Allosteric Modulator of $mGlu_5$. Morrison, R. D.; Blobaum, A. L.; Byers, F. W.; Santomango, T. S.; Bridges, T. M.; Stec, D.; Brewer, K. A.; Sanchez-Ponce, R.; Corlew, M. M.; Rush, R.; **Felts, A. S.**; Manka, J.; Bates, B. S.; Venable, D. F.; Rodriguez, A. L.; Jones, C. K.; Niswender, C. M.; Conn, P. J.; Lindsley, C. W.; Emmitte, K. A.; Daniels, J. S. *Drug Metab. Dispos.* **2012**, *40*, 1834–1845. [PMID: 22711749]

22. Discovery of (2-(2-Benzoxazoyl amino)-4-Aryl-5-Cyanopyrimidine $mGlu_5$ NAMs: From Artificial Neural Network Virtual Screen to *in vivo* Tool Compound. Mueller, R.; Dawson, E. S.; Meiler, J.; Rodriguez, A. L.; Chauder, B. A.; Bates, B. S.; **Felts, A. S.**; Lamb, J. P.; Menon, U. N.; Jadhav, S. B.; Kane, A. S.; Jones, C. K.; Gregory, K. J.; Niswender, C. M.; Conn, P. J.; Olsen, C. M.; Winder, D. G.; Emmitte, K. A.; Lindsley, C. W. *Chem. Med. Chem.* **2012**, *7*, 406–414. [PMID: 22267125]

23. Discovery of a New Molecular Probe ML228: An Activator of the Hypoxia Inducible Factor (HIF) Pathway. Theriault, J. R.; **Felts, A. S.**; Bates, B. S.; Perez, J. R.; Palmer, M.; Gilbert, S. R.; Dawson, E. S.; Engers, J. L.; Lindsley, C. W.; Emmitte, K. A. *Bioorg. Med. Chem. Lett.* **2012**, *22*, 76–81. [PMID: 22172704]

24. 3-Cyano-5-fluoro-*N*-arylbenzamides as Negative Allosteric Modulators of $mGlu_5$: Identification of Easily Prepared Tool Compounds with CNS Exposure in Rats. **Felts, A. S.**; Lindsley, S. R.; Lamb,

J. P.; Rodriguez, A. L.; Menon, U. N.; Jadhav, S.; Jones, C. K.; Conn, P. J.; Lindsley, C. W.; Emmitte, K. A. *Bioorg. Med. Chem. Lett.* **2010**, *20*, 4390–4394. [PMID: 20598884]

25. Discovery and SAR of 6-Substituted-4-Anilinoquinazolines as Non-competitive Antagonists of $mGlu_5$. **Felts, A. S.**; Saleh, S. A.; Le, U.; Rodriguez, A. L.; Weaver, C. D.; Conn, P. J.; Lindsley, C. W.; Emmitte, K. A. *Bioorg. Med. Chem. Lett.* **2009**, *19*, 6623–6626. [PMID: 19854049]

26. The influence of double bond geometry in the inhibition of cyclooxygenases by sulindac derivatives. Walters, M. J.; Blobaum, A. L.; Kingsley, P. J.; **Felts, A. S.**; Sulikowski, G. A.; Marnett, L. J. *Bioorg. Med. Chem. Lett*. **2009**, *19*, 3271-3274. [PMID: 19427206]

27. Molecule of the month. TREDAPTIVE (nicotinic acid/laropiprant): a new lipid-modifying therapy for the treatment of LDL-C, HDL-C and triglycerides. **Felts, A. S.** *Curr. Top. Med. Chem.* **2008**, *8*, 1310. [PMID: 18928015]

28. Sulindac derivatives that activate the peroxisome proliferator-activated receptor γ but lack cyclooxygenase inhibition. **Felts, A. S.**; Siegel, B. S.; Young, S. M.; Moth, C. W.; Lybrand, T. P. Dannenberg, A. J.; Marnett, L. J.; Subbaramaiah, K. *J. Med. Chem.* **2008**, *51*, 4911-4919. [PMID: 18665581]

29. Desmethyl derivatives of indomethacin and sulindac as probes for cyclooxygenase-dependent biology. **Felts, A. S**.; Ji, C.; Stafford, S. B.; Crews, B. C.; Kingsley, P. J.; Subbaramaiah, K.; Siegel, B. S.; Young, S. M.; Dannenberg, A. J.; and Marnett, L. J. *ACS Chem. Biol.* **2007**, *2*, 479-483. [PMID: 17602619]

30. Molecular basis of the time-dependent inhibition of cyclooxygenases by indomethacin. Prusakiewicz, J. J.; **Felts, A. S**.; Mackenzie, B. S.; and Marnett, L. J. *Biochemistry* **2004**, *43*, 15439-15445. [PMID: 15581355]

31. A sterically-encumbered, C2-symmetric chiral acetal for enhanced asymmetric induction in the Pauson-Khand reaction. Krafft, M. E., Boñaga, L. V., **Felts. A. S.**, Hirosawa, C., and Kerrigan, S. *J. Org. Chem.* **2003**, *68*, 6039-6042. [PMID: 12868945]

PRESENTATIONS

Discovery and characterization of a novel negative allosteric modulators of the metabotropic glutamate receptor subtype 5 selected for preclinical development. (Poster) The 14th European ISSX Meeting, June **2017**, Cologne, Germany.

Discovery and SAR of a novel series of selective negative allosteric modulators of the metabotropic glutamate receptor subtype 2 derived from a substituted tetrahydroquinoline core. (Poster) The 2015 International Chemical Congress of Pacific Basin Societies (PAC CHEM™), December **2015**, Honolulu, Hawaii.

SAR and in vitro/vivo evaluation of a novel series of substituted aryl ether benzamides as negative allosteric modulators of $mGlu_5$. (Poster) 7th International Meeting on Metabotropic Glutamate Receptors, October **2011**, Taormina, Sicily, Italy.

Development of a novel chemotype for negative allosteric modulation of mGluR5. (Poster) 237th National Meeting of the American Chemical Society, March **2009**, Salt Lake City, UT.

Structure-based design of novel NSAIDs that activate PPARγ and induce apoptosis in tumor cells but lack cyclooxygenase inhibition. (Poster) Vanderbilt-Ingram Cancer Center Retreat, May **2008**, Nashville, TN.

Structure-based design of novel NSAIDs that induce apoptosis in tumor cells but lack COX-2 inhibitory activity. (Oral) 96th Annual Meeting for the American Association for Cancer Research, April **2005**, Anaheim, CA.