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Curriculum Vitae

Ryan J. Cady

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Education

2007-2008	Master of Science - Biology	College
	University of Wisconsin-Madison, Madison, WI	
2003-2007	Bachelor of Science - Neurobiology	College
	Missouri State University, Springfield, MO	

Employment History and Professional Experience

2024-Present	Strategic Account Director	Remote
	Headlands Research, Inc.	
2023-Present	Site President, Clinvest Headlands, LLC., dba Clinvest Research	Springfield, MO
	Headlands Research, Inc	
2022-Present	Adjunct Faculty- Biology Department	Springfield, MO
	Missouri State University	
2016 to 2023	Owner & CEO	Springfield, MO
	Clinvest Research, LLC	
2013-2016	Director of Research	Springfield, MO
	Clinvest Research LLC, A Division of Banyan Group Inc.	
2011-2013	Sr. Research Scientist – Center for Biomedical & Life Sciences	Springfield, MO
	Missouri State University	

2009-2011	Research Specialist II – Center for Biomedical & Life Sciences	Springfield, MO
	Missouri State University	
2007-2008	Graduate Research Assistant – Biology Department	Springfield, MO
	Missouri State University	
2006	Internship	Irvine, CA
	Allergan, Inc.	
2004-2005	Research Assistant – Biology Department	Springfield, MO
	Missouri State University	
2002-2003	Internship – Biology Department	Springfield, MO
	Missouri State University	

Peer-Reviewed Research Publications

12. Cady RK, Munjal S, **Cady RJ**, Manley HR, Brand-Schieber E. (2017) Randomized, double-blind, crossover study comparing DFN-11 injection (3 mg subcutaneous sumatriptan) with 6 mg subcutaneous sumatriptan for the treatment of rapidly-escalating attacks of episodic migraine. J Headache Pain. 2017 Dec;18(1):17.

11. Gershan LA, Durham PL, Skidmore J, Shimizu J, **Cady RJ**, Sheng X, Maloney CG. (2015) The Role of Salivary Neuropeptides in Pediatrics: Potential Biomarkers for Integrated Therapies. Eur J Integr Med. 2015 Aug; 7(4):372-377.

10. Cady RK, Turner I, Dexter K, Beach ME, **Cady RJ**, Durham PD. (2013) An exploratory study of salivary calcitonin gene-related peptide levels relative to acute interventions and preventative treatment with onabotulinumtoxinA in chronic migraine. Headache. Oct;54(2)269-77.

9. **Cady RJ**, Denson JE, Sullivan LQ, Durham PL. (2014) Dual orexin receptor antagonist 12 inhibits expression of proteins in neurons and glia implicated in peripheral and central sensitization. Neuroscience. Mar 28;269C:79-92.

8. Cady RK, Turner I, Dexter K, Beach ME, **Cady R**, Durham PD. (2013) An exploratory study of salivary calcitonin gene-related peptide levels relative to acute interventions and preventative treatment with onabotulinumtoxinA in chronic migraine. Headache. Oct;54(2)269-77.

7. **Cady RJ**, Denson JE, Durham PL. (2013) Inclusion of cocoa as a dietary supplement represses expression of inflammatory proteins in spinal trigeminal nucleus in response to chronic trigeminal nerve stimulation. Mol Nutr Food Res. Jun;57(6):996-1006.

6. **Cady RJ**, Shade CL, Cady RK. (2012) Advances in drug development for acute migraine. Drugs. Dec3;2187-205.

5. **Cady RJ**, Glenn JR, Smith KM, Durham PL. (2011) Calcitonin gene-related peptide promotes cellular changes in trigeminal neurons and glia implicated in peripheral and central sensitization. Mol Pain. Dec6;7:94.

4. **Cady RJ**, Hirst JJ, Durham PL. (2010) Dietary grape seed polyphenols repress neuron and glia activation in trigeminal ganglion and trigeminal nucleus caudalis. Molecular Pain, 6:91.

3. **Cady RJ**, Durham PL. (2010) Cocoa-enriched diets enhance expression of phosphatases and decrease expression of inflammatory molecules in trigeminal ganglion neurons. Brain Research, 1323:18-32.

2. Durham PL, **Cady R**, Cady RK. (2004) regulation of calcitonin gene-related peptide secretion from trigeminal nerve cells by botulinum toxin Type A: implications for migraine therapy. Headache, 44:35-43.

1. Dake RL, Lynch S, Durham PL, **Cady RJ**, Hawkins JL. Compositions Prepared from Poultry and Methods of Their Use. 2013 Provisional

Published Abstracts

34. Putnam, K., Sims, M. Masterson, C. J., Sly, J. S., **Cady, R. J**, Wafaa, K. (2023, June 15-18) To Hear or to Fear: Examining Sound Hypersensitivity in Individuals with Migraine [Conference session]. American Headache Society's 65th Annual Scientific Meeting, Austin, TX, United States

33. True, D., Smith, T. R., **Cady, R.** J., Sly, J. S., Wikowsky, A., Devine, J. B., Manley, H. R., Masterson, C. (2022, June 9-12). *A multicenter, open label study assessing the efficacy of AJOVY® (fremanezumab-vfrm) on interictal migraine related burden* [Conference session]. American Headache Society's 64th Annual Scientific Meeting, Denver, CO, United States.

32. Smith, T. R., Manley, H. R., Sly, J. S., Wikowsky, A., Kandel, E., Dehlin, J. O., **Cady, R. J.**, Martin, V. T., Buchanan, E. M. (2022, June 9-12). *The impact of migraine on women in the workforce* [Poster presentation]. American Headache Society's 64th Annual Scientific Meeting, Denver, CO, United States.

31. Diamond, M., Rhyne, C., Smith, T. R., True, D., **Cady, R. J**., Sly, J. S., Wikowsky, A., Masterson, C., Manley, H. R. (2022, June 9-12). *A multicenter, open label study assessing the efficacy of erenumab on functional impact of migraine* [Poster presentation]. American Headache Society's 64th Annual Scientific Meeting, Denver, CO, United States.

30. Buchanan, EM., Manley, HR., Sly, JS., Cunningham, A., Wikowsky, A., **Cady, RJ**. (2019, July). *Development of a Patient Reported Outcome Measure Evaluating Meaningful Response to Migraine Treatment*. Poster session presented at the American Headache Society's 61st Annual Scientific Meeting, Philadelphia, PA.

29. Smith, TR., Sly, JS., Martin, VT., Kandel, E., **Cady, RJ**. (2019, July). *Analysis of a Patient Reported Preference to Response to Meaningful Relief Survey*. Poster session presented at the American Headache Society's 61st Annual Scientific Meeting, Philadelphia, PA.

28. Wikowsky, A., Buchanan, EM., **Cady, RJ**., Manley, HR., Sly, JS., Cunningham, A. (2019, April). *Development of Patient Defined Migraine Assessment*. Poster session presented at the 91st Annual Meeting of the Midwestern Psychological Association, Chicago, IL.

27. Buchanan, EM., Manley, HR., Sly, JS., Wikowsky, A., **Cady, RJ**. (2019, February). *Uncovering factors patients use to evaluate meaningful response to migraine treatment*. Poster session presented at the 32nd Annual Practicing Physician's Approach to the Difficult Headache Patient, Carlsbad, CA.

26. **Cady RJ**, Smith TR, Manley HR, Sly JS, Cady RK. (2017) A Randomized Pilot Study of Nudexta® for the Prevention of Episodic Migraine. 18th International Headache Congress, Vancouver, Canada.

25. **Cady RJ**, Brand-Schieber E, Munjal S, Manley HR, Smith T, Cady RK. (2017) An Open-Label, Pilot Study of DFN 11 Injection (Sumatriptan 3 Mg) for Medication Overuse Headache. 59th Annual Scientific Meeting, American Headache Society, Boston, MA.

24. Cady RK, Munjal S, **Cady RJ**, Manley HR, Brand-Schieber E. (2017) A Randomized, Double-Blind, Crossover Pilot Study Comparing 3 mg Subcutaneous Sumatriptan with 6 mg Subcutaneous Sumatriptan using DFN-11 Autoinjector for the Acute Treatment of Rapidly-Escalating Migraine Attacks. 59th Annual Scientific Meeting, American Headache Society, Boston, MA.

23. Cady RK, Mechtler L, McAllister P, Rothrock J, Manley HR, **Cady RJ**. (2016) A Randomized Open-Label, Parallel Two-Arm Study Evaluating the Efficacy of H.P. Acthar Injection Gel for Adults with Treatment Resistant Chronic Migraine. Annual Meeting American Academy of Neurology, Vancouver, Canada.

22. Cady RK, **Cady RJ**, Manley HR, Tarrasch J, Oh A. (2014) A Double-Blind, Placebo-Controlled Study of Transnasal Sphenopalatine Ganglion Blockade with TX360 in the Treatment of Chronic Migraine: Evaluation of Patient Reported Outcomes. 55th Annual Scientific Meeting, Los Angeles, CA.

21. Cady RK, Manley HR, **Cady RJ**, Tarrasch J, Oh A. (2014) A Double-Blind, Placebo-Controlled Study of Transnasal Sphenopalatine Ganglion Blockade with TX360 in the Treatment of Chronic Migraine: Evaluation of Clinical Outcomes. 55th Annual Scientific Meeting, Los Angeles, CA.

20. Cady RK, Cady RJ, Manley HR, Tarrasch J, Cadle R. (2014) Multi-Centered, Double-Blind, Placebo-Controlled Pilot Study of Mycratine in Treatment of Acute Migraine at the Onset of Pain. American Headache Society, 55th Annual Scientific Meeting, Los Angeles, CA.

19. Martin VT, Cady RK, **Cady RJ**. (2013) Dual Orexin Receptor Antagonist 12 Represses Expression of Proteins in Neurons and Glia Implicated in Peripheral and Central Sensitization. American Academy of Neurology, 65th Annual Meeting, San Diego, CA.

18. Durham PL, Sullivan L, **Cady RJ**. (2013) Dual Orexin Receptor Antagonist 12 Represses Expression of Proteins in Neurons and Glia Implicated in Peripheral and Central Sensitization. American Academy of Neurology, 65th Annual Meeting, San Diego, CA.

17. **Cady RJ**, Hawkins JL, Durham, PL. (2012) Inflammatory Neck Muscle Pain Mediated Cellular and Behavioral Changes that Promote Prolonged Sensitization of Trigeminal Nociceptive Neurons. Society for Neuroscience. 42nd Annual Meeting, New Orleans, LA.

16. Durham PL, **Cady RJ**, and Hawkins JL. (2012) Sensitization of Trigeminal Nociceptive Neurons in Response to Prolonged Neck Muscle Pain: Implications for Migraine Pathology, American Headache Society, 54th Annual Scientific Meeting, Los Angeles, CA.

15. **Cady RJ**, Denson JE, and Durham PL. (2012) Inclusion of Cocoa as a Dietary Supplement Represses Cytokine Expression in Spinal Trigeminal Nucleus in Response to Chronic Trigeminal Nerve Stimulation, American Headache Society, 54th Annual Scientific Meeting, Los Angeles, CA.

14. **Cady RJ**, Hawkins JL, and Durham PL. (2012) Elevated Levels of CGRP in the Upper Spinal Cord Promotes Cellular Changes in Trigeminal Ganglia Associated with Peripheral Sensitization of Trigeminal Nociceptors, American Headache Society, 54th Annual Scientific Meeting, Los Angeles, CA.

13. **Cady RJ**, Hawkins JL, and Durham PL. (2012) Sensitization of Trigeminal Nociceptive Neurons in Response to Prolonged Neck Muscle Pain: Implications for TMD Pathology, 36th Scientific Meeting of the American Academy of Orofacial Pain, Pasadena, CA.

12. Dieckhoff DT, **Cady RJ**, Durham PL. (2012) Calcitonin Gene-Related Peptide Promotes Healing of Cutaneous Thermal Wounds, 22nd Annual Meeting of the Wound Healing Society, Atlanta, GA.

11. **Cady RJ**, Durham PL. (2012) Regulation of inflammatory proteins in trigeminal ganglion and trigeminal nucleus caudalis in response to cocoa enriched diets: Implications for migraine and TMJ disorder. American Chemical Society, Division of Agricultural and Food Chemistry, San Diego, CA.

10. **Cady RJ**, Durham PL. (2011) Inclusion of Cocoa as a Dietary Supplement Represses Neuron and Glia Activation in Trigeminal Nucleus Caudalis in Response to Chronic Trigeminal Nerve Stimulation. American Headache Society, 53rd Annual Scientific Meeting, Washington DC.

9. An T, Hirst JJ, **Cady RJ**, Durham PL. (2011) β-Sitosterol Isolated from Cocoa Powder Functions to Increase Expression of Anti-Inflammatory, Proteins in Trigeminal Neurons: Implications for Treatment of Migraine and TMJ Disorders. 10th Annual Oxford International Conference on the Science of Botanicals, Oxford.

8. **Cady RJ**, Hirst JJ, Campos JR, Durham PL. (2010) Inclusion of Grape Seed Extract as a Dietary Supplement Represses Neuron and Glia Activation in the Trigeminal Nucleus Caudalis in Response to Chronic Trigeminal Nerve Stimulation. American Headache Society, 52nd Annual Scientific Meeting, Los Angeles.

7. **Cady RJ**, Durham PL. (2009) Repression of Acute and Chronic Inflammatory Changes in Trigeminal Ganglion Neurons and Glia in Response to Cocoa Enriched Diets. 51st Annual Scientific Meeting, Philadelphia.

6. **Cady RJ**, Durham PL. (2009) Regulation of Inflammatory Genes in Trigeminal Ganglion Neurons and Glia in Response to Cocoa Enriched Diets: Potential as Migraine Preventative. 22nd Annual Practicing Physician's Approach to the Difficult Headache Patient, Scottsdale.

5. Bellamy J, **Cady R**, and Durham PL. (2004) Control of CGRP Secretion from Trigeminal Neurons by NO, Protons, and Botulinum Toxins: Implications for Migraine Pathology and Treatment. American Headache Society's 46th Annual Meeting, Vancouver.

4. Bellamy J, **Cady R**, and Durham PL. (2004) Evaluation of CGRP and VIP as Biological Markers in Activation of Trigeminal and Parasympathetic Nerves in Response to "Sinus" Symptoms. 1st Annual Headache Research Summit, Rancho Mirage, CA. National Headache Foundation.

3. Bellamy JL, **Cady R**, and Durham PL. (2003) Evaluation of CGRP and VIP as Biological Markers in Activation of Trigeminal and Parasympathetic Nerves in Response to "Sinus" Symptoms. 45th International Headache Congress Meeting, Rome, Italy.

2. Durham PL, **Cady R**, and Cady R. (2003) Mechanism of Botulinum Toxin Type A Inhibition of Calcitonin Gene-Related Peptide (CGRP) Secretion from Trigeminal Nerves. 45th International Headache Congress Meeting, Rome, Italy.

1. Durham PL, **Cady R**, and Cady R. (2003) Regulation of Calcitonin Gene-Related Peptide (CGRP) Secretion from Trigeminal Nerve Cells by Botulinum Toxin Type A: Implications for Migraine Therapy. American Headache Meeting, Chicago.

Research Experience

Investigator Initiated Protocol

Allergan	
10-001AL	Calcitonin Gene-related Peptide (CGRP) Levels in the Pathogenesis of Chronic Migraine
13-002AL	Exploratory Study of the Natural History, Clinical Outcomes, and Neuronal Endplate Changes in Subjects Reporting Short Duration vs. Long Duration of Benefit for OnabotulinumtoxinA in Treatment of Chronic Migraine
Amgen	
20197121 ISS	A Multicenter, Open Label Study Assessing the Efficacy of erenumab on Functional Impact of Migraine

19-001AM	A Multicenter, Open Label Study Assessing the Efficacy of Erenumab on Functional Impact of Migraine
Avanir Pharmaceuticals, Inc.	
14-001AV1	A Randomized Pilot Study of Nuedexta™ for the Prevention and Modification of Disease Progression in Episodic Migraine
Capnia	
15-001CA	An Open Label, Pilot Study Evaluating the Efficacy and Safety of the Use of Nasal Carbon Dioxide for the Treatment of Cluster Headache
Dr. Reddy's Laboratories Ltd.	
DFN-11-CD-006	Open Label, Efficacy and Safety Pilot Study of DFN-11 Injection (Sumatriptan 3 mg) in Medication Overuse Headache
DFN-11-CD-007	Open Label, Efficacy and Safety Pilot Study of DFN-11 Injection (Sumatriptan 3 mg) in Medication Overuse Headache
GlaxoSmithKline	
114680	Evaluation of CGRP, Estrogen, Cortisol, VIP, Norepinephrine, PGE2, PG12, and β-Endorphin Levels in Saliva of Menstrual Migraine Patients Before and After Treatment with Treximet
Ionis	
15-001IS	A Multicenter, Randomized, Double-Blind, Placebo-Controlled Study Evaluating the Efficacy and Safety of ISIS 546254 for Preventative Treatment of Chronic Migraine
Questcor Pharmaceuticals, Inc.	
ACTHAR	A Randomized, Open-Label, Parallel Two-Arm Study Evaluating the Efficacy of H.P. Acthar

	Injection Gel in the Treatment of Adults with Intractable Chronic Migraine
Teva	
19-001TE ISS	A Multicenter, Open Label Study Assessing the Efficacy of AJOVY ® (fremanezumab-vfrm) on Interictal Migraine Related Burden
Vivid	
14-001VI	Multi-Center, Double-Blind, Placebo-Controlled Pilot Study of VVD-101 for the Treatment of Delayed Alcohol-Induced Headaches

Sponsor Initiated Protocol

AbbVie	
M15-554	A Phase 3, Randomized, Double-Blind, Study Comparing Upadacitinib (ABT-494) to Placebo in Subjects With Active Psoriatic Arthritis Who Have a History of Inadequate Response to at Least One Biologic Disease Modifying Anti-Rheumatic Drug (bDMARD)
M15-572	A Phase 3, Randomized, Double-Blind, Study Comparing Upadacitinib (ABT-494) to Placebo and to Adalimumab in Subjects With Active Psoriatic Arthritis Who Have a History of Inadequate Response to at Least One Non-Biologic Disease Modifying Anti-Rheumatic Drug (DMARD) - SELECT - PsA 1
M15-925	A Phase 3, Randomized, Active-Controlled, Double-Blind Study Comparing ABT-494 to Abatacept in Subjects with Moderately to Severely Active Rheumatoid Arthritis with Inadequate Response or Intolerance to Biologic DMARDs (bDMARDs) on Stable Conventional Synthetic Disease Modifying Anti-Rheumatic Drugs (csDMARDs)

M15-998	A Phase 3, Randomized, Double-Blind Study Comparing Risankizumab to Placebo in Subjects with Active Psoriatic Arthritis Including Those who Have A History of Inadequate Response or Intolerance to Biologic Therapy(Ies)
M16-560	A Randomized, Double-Blind, Double-Dummy, Active Controlled Study to Evaluate the Safety, Tolerability, Pharmacokinetics, and Efficacy of ABBV-3373 in Subjects with Moderate to Severe Rheumatoid Arthritis
M16-852	A Multicenter, Randomized, Double-Blind, Placebo-Controlled Study to Evaluate the Safety and Efficacy of Upadacitinib in Subjects With Giant Cell Arteritis
M19-944	A Phase 3 Randomized, Placebo-Controlled, Double-Blind Program to Evaluate Efficacy and Safety of Upadacitinib in Adult Subjects with Axial Spondyloarthritis
M21-307	Phase 3 Multicenter, Randomized, Double-blind, Placebo-controlled Study of BOTOX (Botulinum Toxin Type A) for the Prevention of Migraine in Subjects with Episodic Migraine
M23-072	A Phase 4, Multicenter, Open-Label Study to Evaluate the Safety, Tolerability, and Efficacy of the Concomitant Use of Ubrogepant for the Acute Treatment of Migraine in Subjects Taking Atogepant for the Preventative Treatment of Episodic Migraine
AEON	
ABP-20001	A Randomized, Multicenter, Double-Blind, Placebo-Controlled, Phase 2 Study of ABP-450 (prabotulinumtoxinA) Purified Neurotoxin Complex for the Prevention of Migraine Headache
ABP-20002	A Randomized, Multicenter, Dose-Blinded, Phase 2 Extension Study of ABP-450

	(prabotulinumtoxinA) Purified Neurotoxin Complex for the Prevention of Migraine Headache
Alder Biopharmaceuticals, Inc.	
ALD403-CLIN-005	A Parallel Group, Double-Blind, Randomized, Placebo Controlled, Dose-Ranging Phase 2 Trial to Evaluate the Efficacy, Safety, and Pharmacokinetics of ALD403 Administered Intravenously in Patients with Chronic Migraine
ALD403-CLIN-006	A Parallel Group, Double-Blind, Randomized, Placebo Controlled, Trial to Evaluated the Efficacy and Safety of ALD403 Administered Intravenously in Patients with Frequent Episodic Migraine
ALD403-CLIN-011	A Parallel Group, Double-Blind, Randomized, Placebo Controlled Phase 3 Trial to Evaluate the Efficacy and Safety of ALD403 Administered Intravenously in Patients with Chronic Migraine
ALD403-CLIN-015	A Parallel Group, Double-Blind, Randomized, Placebo Controlled Study to Evaluate the Efficacy and Safety of Eptinezumab Administered Intravenously in Subjects Experiencing an Acute Attack of Migraine
Allergan	
AGN-191622-103	BOTOX (Botulinum Toxin Type A) Purified Neurotoxin Complex as Headache Prophylaxis in Adolescents (Children 12 to <18 Years of Age) with Chronic Migraine
AGN-214868-007	To evaluate the safety, tolerability, and efficacy of AGN-214868 compared to placebo in the treatment of postherpetic neuralgia (PHN)
CGP-MD-01	A Phase 2/3, Multicenter, Randomized, Double-Blind, Placebo Controlled, Parallel-

	Group Study to Evaluate the Efficacy, Safety, and Tolerability of Multiple Dosing Regimens of Oral AGN-241689 in Episodic Migraine Prevention
GMA-US-NEU-0206	A Phase 4 Multicenter, Prospective, Randomized, Open-label Study to Compare the Efficacy, Safety, and Tolerability of BOTOX® and Topiramate for Headache Prophylaxis in Adults with Chronic Migraine
UBR-MD-01	A Phase 3, Multicenter, Randomized, Double-Blind, Placebo-Controlled Single Attack Study to Evaluate the Efficacy, Safety, and Tolerability or Oral Ubrogepant in the Acute Treatment of Migraine
UBR-MD-04	A Multicenter, Randomized, Open-Label, Extension Study to Evaluate the Long-term Safety and Tolerability of Oral Ubrogepant in the Acute Treatment of Migraine With or Without Aura
3101-301-002	A Phase 3, Multicenter, Randomized, Placebo-Controlled, Parallel-Group Study to Evaluate the Efficacy, Safety, and Tolerability of Oral Atogepant for the Prevention of Migraine in Participants With Episodic Migraine (ADVANCE)
3101-302-002	A Phase 3, Multicenter, Randomized, Open-Label Study to Evaluate the Long-Term Safety And Tolerability of Oral Atogepant for the Prevention of Migraine in Participants With Episodic Migraine
3101-304-002	A Phase 3, Multicenter, Randomized, Double-blind, Placebo-controlled, Parallel-group Study to Evaluate the Efficacy, Safety, and Tolerability of Oral Atogepant for the Prophylaxis of Migraine in Participants with Episodic Migraine Who Have Previously Failed

	2 to 4 Classes of Oral Prophylactic Treatments (ELEVATE
3101-309-002	A Phase 3, Multicenter, Open-Label 40-Week Study to Evaluate the Long-Term Safety And Tolerability of Oral Atogepant for the Prevention of Migraine in Participants With Episodic Migraine
3101-312-002	A Phase 3, Multicenter, Open-Label 52-Week Extension Study to Evaluate the Long-Term Safety and Tolerability of Oral Atogepant for the Prevention of Migraine in Participants with Chronic or Episodic Migraine
3110-304-002	A Phase 3, Multicenter, Randomized, Double-blind, Placebo-controlled, Crossover Study to Evaluate the Efficacy, Safety, and Tolerability of Oral Ubrogepant in the Acute Treatment of Migraine When Administered During the Prodrome
Amgen	
20150124	Prospective Cohort Study to Describe Patient-Reported Outcomes in Subjects with Migraine Eligible for Prophylaxis
20120178	A Phase 2, Randomized, Double-blind, Placebo-controlled Study to Evaluate the Efficacy and Safety of AMG 334 in Migraine Prevention
20130255	An Open-label Extension (OLE) Study to Assess the Long-term Safety and Efficacy of AMG 334
20120295	A Phase 2, Randomized, Double-blind, Placebo-controlled Study to Evaluate the Efficacy and Safety of AMG 334 in Chronic Migraine Prevention
20120296	A Phase 3, Randomized, Double-Blind, Placebo-Controlled Study to Evaluate the

	Efficacy and Safety of AMG334 in Migraine Prevention – STRIVE Study
20110186	A Randomized Withdrawal Double-blind Study of Etanercept Monotherapy Compared to Methotrexate Monotherapy for Maintenance of Remission in Subjects with Rheumatoid Arthritis
20180060	Effect of Erenumab-aooe on Disability and Work Productivity in Employed Subjects With Episodic Migraine Who Have Previously Failed 1 or More Migraine Preventative Treatments
20190008	Comprehensive Assessment of Erenumab Efficacy in Subjects With High Frequency Episodic Migraine With at Least 1 Previously Failed Preventive Treatment: a Global, Double-blind, Placebo-controlled Phase 4 Study
20190389	Phase 4, Open-label Study to Evaluate Treatment Satisfaction With Erenumab in Patients With Migraine
Autonomic Technologies	
CIP-006	Sphenopalatine Ganglion Stimulation for the Treatment of Chronic Cluster Headache
Avanir Pharmaceuticals, Inc.	
17-AVP-825-301	A Phase 3, Multicenter, Randomized, Double-Blind, Placebo-Controlled Study to Assess the Safety and Efficacy of ONZETRA® Xsail® (Sumatriptan Nasal Powder) for the Acute Treatment of Episodic Migraine With or Without Aura in Adolescents
Axsome Therapeutics	
AXS-07-301	Momentum (Maximizing Outcomes in Treating acute Migraine: A Randomized Double-Blind, Single Dose, Placebo-Controlled Study to Assess the Efficacy and Safety of AXS-07

	(meloxicam and rizatriptan) for the Acute Treatment of Migraine in Adults.
AXS-07-302	An Open-Label Study to Assess the Long-term Safety of AXS-07 (meloxicam and rizatriptan) for the Acute Treatment of Migraine in Adults.
AXS-07-303	MOMENTUM-2 (Maximizing Outcomes in Treating Acute Migraine – 2): A Randomized, Double-blind, Single-dose, Placebo-controlled Study to Assess the Efficacy and Safety of AXS-07 (meloxicam and rizatriptan) for the Acute Treatment of Migraine in Adults.
Biohaven Pharmaceuticals, Inc	
BHV3000-305	Phase 3, Randomized, Double-Blind, Placebo-Controlled Study to Evaluate the Efficacy and Safety of Rimegepant in Migraine Prevention
BHV3500-201	Phase II: Double-Blind, Randomized, Placebo Controlled, Dose-Ranging Trial of BHV-3500 for the Acute Treatment of Migraine
BHV3500-202	A Phase 2/3 Open-label, Long-Term, Safety Trial of BHV3500 (vazegepant) intranasal (IN) for the Acute Treatment of Migraine
BHV3500-301	Phase 3: Double-Blind, Randomized, Placebo Controlled, Safety and Efficacy Trial of BHV-3500 (vazegepant) intranasal (IN) for the Acute Treatment of Migraine
BHV3500-302	A Phase 2/3 Randomized, Double-Blind, Placebo-Controlled Study to Evaluate the Efficacy and Safety of Oral Zavegepant in Migraine Prevention
BHV3000-311	Phase 3, multicenter, randomized, double-blind, group sequential, placebo-controlled study to assess efficacy and safety of rimegepant for the treatment of migraine (with or without aura) in children and adolescents ≥ 6 to <18 years of age

BHV3000-312	Phase 3, Multicenter, Open-Label Study to Assess the Long-Term Safety and Tolerability of Rimegepant for the Acute Treatment of Migraine (With or Without Aura) in Children and Adolescents ≥ 6 to <18 years of age
BHV3000-316	A Phase 2/3, Double-Blind, Randomized, Placebo-Controlled, Safety and Efficacy Trial of BHV-3000 (Rimegepant) Orally Disintegrating Tablet (ODT) for the Acute Treatment of Chronic Rhinosinusitis (CRS) With or Without Nasal Polyps
BHV3000-317	A Phase 2/3, Double-Blind, Randomized, Placebo-Controlled, Safety and Efficacy Trial of BHV-3000 (Rimegepant) Orally Disintegrating Tablet (ODT) for the Acute Treatment of Temporomandibular Disorders (TMD)
BHV3000-404	A Phase 4 Randomized, Double-blind, Placebo-controlled Study to Evaluate the Efficacy and Safety of Rimegepant in Episodic Migraine Prevention with Multiple Dosing Regimens
BHV3000-406	A Phase 4, Randomized, Double-Blind Placebo-Controlled, Efficacy and Tolerability Trial of Rimegepant for the Acute Treatment of Migraine in Adults Unsuitable for Triptan Use
BHV3000-407	A Phase 4, Randomized, Double-Blind, Placebo-Controlled Study to Evaluate the Efficacy and Tolerability of Rimegepant for the Prevention of Migraine in Adults with a History of Inadequate Response to Oral Preventive Medications
Boston Scientific	
OPTIMISE	Occipital Nerve Stimulation (ONS) for Migraine
Bristol Myers Squibb	
IM011054	A Phase 3, Randomized, Double-Blind, Placebo-Controlled Study to Evaluate the Efficacy and Safety or Deucravacitinib in

	Participants with Active Psoriatic Arthritis who are Naïve to Biological Disease-modifying Anti-rheumatic Drugs
Corona Registry	
RA-100	Corona Rheumatoid Arthritis (RA) Drug Safety & Effectiveness Registry
Crescendo Bioscience	
133-CL-01	Vectra InVolved Informed Decision Outcome Study (VIVID): A prospective randomized controlled trial evaluating the effect of guided care with Vectra compared to treatment as usual in patients with rheumatoid arthritis
Daiichi Sankyo	
DS5565-A-309	A Randomized, Double-Blind, Placebo- and Active-Controlled Study of DS-5565 for Treatment of Pain Associated with Fibromyalgia
DS5565-312	An Open-label Extension Study of DS-5565 for 52 Weeks in Pain Associated with Fibromyalgia
Dr. Reddy's Laboratories Ltd.	
DFN-11-CD-002	A Multi-Center, Randomized, Placebo-Controlled, Double-Blind, Crossover Study Evaluating Efficacy of DFN-15 in Patients with Migraine Headache with or Without Aura
DFN-11-CD-004	RESTOR: A Multicenter, Randomized, Double-Blind, Placebo-Controlled Efficacy, Tolerability, and Safety Study of DFN-11 Injection (Sumatriptan 3 mg) in Episodic Migraine with or Without Aura
DFN-11-CD-007	Open Label, Efficacy and Safety Pilot Study of DFN-11 Injection (Sumatriptan 3 mg) in Medication Overuse Headache

Electrocore

GM-US-10	A Randomized, Multicenter, Double-Blind, Parallel, Sham-Controlled Study of Non-Invasive Bagus Nerve Stimulation (Nvns) for the Prevention of Migraines (PREMIUM II)

Eli Lilly

I7X-MC-LLCF	Effect of LY3203636 on Alzheimer's Disease Progression as Measured by Cerebral 18F-AV-1452 Tau-PET in Mild Alzheimer's Disease Dementia
H8A-MC-LZBE	A 24-Month, Phase 3, Multicenter, Placebo-Controlled Study of Efficacy and Safety of Solanezumab versus Placebo in Prodromal Alzheimer's Disease
I5Q-MC-CGAB	A Phase 2b, Randomized, Double-Blind, Placebo-Controlled Study of LY2951742 in Patients with Episodic Migraine
I5Q-MC-CGAM	A Phase 3 Randomized, Double-Blind, Placebo-Controlled Study of LY2951742 with a Long-Term Open-Label Extension in Patients with Chronic Cluster Headache
I5Q-MC-CGAL	A Phase 3 Randomized, Double-Blind, Placebo-Controlled Study of LY2951742 in Patients with Episodic Cluster Headache
I5Q-MC-CGAG	A Phase 3, Randomized, Double-Blind, Placebo-Controlled Study of LY2951742 in Patients with Episodic Migraine – the EVOLVE-1 Study
I5Q-MC-CGAI	A Phase 3, Randomized, Double-Blind, Placebo-Controlled Study of LY2951742 in Patients with Chronic Migraine – the REGAIN Study
I4V-MC-JAJA	A Randomized Active-Controlled, Parallel-Group, Phase 3B/4 Study of Baricitinib in Patients with Rheumatoid Arthritis.

I8F-MC-GPGL	A Phase 3, Randomized, Open-Label Trial Comparing Efficacy and Safety of Tirzepatide versus Semaglutide Once Weekly as Add-on Therapy to metformin in Patients with Type 2 Diabetes (SURPASS-2)
I8F-MC-GPHK	Efficacy and Safety of Tirzepatide Once Weekly Versus Placebo in Participants Who are either Obese or Overweight with Weight-Related Comorbidities (SURMOUNT-1)
I8H-MC-BDCU	A Phase 3, Multicenter, Randomized, Parallel-Design, Open-Label Trial to Evaluate the Efficacy and Safety of LY3209590 Compared with Insulin Degludec in Participants with Type 2 Diabetes Currently Treated with Basal Insulin (QWINT-3)
I8H-MC-BDCW	A Phase 3, Parallel-Design, Open-Label, Randomized Control Study to Evaluate the Efficacy and Safety of LY3209590 Administered Weekly Using a Fixed Dose Escalation Compared to Insulin Glargine in Insulin-Naïve Adults with Type 2 Diabetes
I8H-MC-BDCX	A Phase 3, Parallel-Design, Open-Label, Randomized Control Study to Evaluate the Efficacy and Safety of LY3209590 as a Weekly Basal Insulin Compared to Insulin Degludec in Insulin Naïve Adults with Type 2 Diabetes
I8H-MC-BDCY	A Phase 3, Multicenter, Randomized, Parallel-Design, Open-Label Study to Evaluate the Efficacy and Safety of LY3209590 as a Weekly Basal Insulin Compared with Insulin Deludec in Participants with Type 1 Diabetes Treated with Multiple Daily Injection Therapy
H0P-MC-CPMP	A Master Protocol for Randomized, Placebo-Controlled, Phase 2 Clinical Trials of Multiple Interventions for the Treatment of Chronic Pain

H0P-MC-CPMP-OA02	A Master Protocol for Randomized, Placebo-Controlled, Phase 2 Clinical Trials of Multiple Interventions for the Treatment of Chronic Pain
H0P-MC-CPMP-OA05	A Master Protocol for Randomized, Placebo-Controlled, Phase 2 Clinical Trials of Multiple Interventions for the Treatment of Chronic Pain
H0P-MC-CPMP-BP02	Randomized, placebo-Controlled, Phase 2 Clinical Trial to Evaluate LY3526318 for the Treatment of Chronic Low Back Pain
H0P-MC-CPMP-BP05	Randomized, Placebo-Controlled, Phase 2 Clinical Trial to Evaluate LY3857210 for the Treatment of Chronic Low Back Pain
H0P-MC-CPMP-NP02	Randomized, placebo-Controlled, Phase 2 Clinical Trial to Evaluate LY3526318 for the Treatment of Diabetic Peripheral Neuropathic Pain
H0P-MC-CPMP-NP05	Randomized, Placebo-Controlled, Phase 2 Clinical Trial to Evaluate LY3556050 for the Treatment of Diabetic Peripheral Neuropathic Pain
H0P-MC-CPMP-NP03	Randomized, Placebo-Controlled, Phase 2 Clinical Trial to Evaluate LY3556050 for the Treatment of Diabetic Peripheral Neuropathic Pain
H8H-MC-LAHV	Pediatric Options for Migraine Relief: A Randomized, Double-Blind, Placebo-Controlled Study of Lasmiditan for Acute Treatment of Migraine: PIONEER-PEDS
H8H-MC-LAHW	A Phase 3, 12-Month, Open-Label Study of Lasdmiditan in Pediatric Patients with Migraine - PIONEER-PED2

J1H-MC-LAJB	A Phase 2, Randomized, Double-Blind, Placebo-Controlled Study of LY3451838 in Adults with Treatment-Resistant Migraine
I8F-MC-GPGN	The Effect of Tirzepatide versus Dulaglutide on Major Adverse Cardiovascular Events in Patients with Type 2 Diabetes (SURPASS-CVOT)
I8F-MC-GPHE	A Randomized, Open-Label, Parallel-Group, Two-Arm, Phase 4 Study to Evaluate the Long-Term Efficacy and Safety of Tirzepatide Compared with Intensified Conventional Care in Adults When Initiating Treatment Early in the Course of Type 2 Diabetes (SURPASS-EARLY)
I8F-MC-GPHM	Efficacy and Safety of Tirzepatide Once Weekly versus Placebo After an Intensive Lifestyle Program in Participants without Type 2 Diabetes who have Obesity or are Overweight with Weight-Related Comorbidities: A Randomized, Double Blind, Placebo-Controlled Trial (SURMOUNT-3)
I8F-MC-GPIH	A Phase 4, Randomized, Open-Label, Active-Controlled Study to Investigate the Efficacy and Safety of Switching from Weekly Dulaglutide to Weekly Tirezepatide in Adults with type 2 Diabetes
I8F-MC-GPIJ	A Phase 3, Randomized, Double-Blind, Placebo-Controlled Study to Investigate the Effect of Tirezepatide on the Reduction of Morbidity and Mortality in Adults with Obesity
J1A-MC-KDAF	A Phase 2B, Double-Blind, Placebo-Controlled Study to Evaluate Peresolimab in Adult Participants with Moderately-to-Severely Active Rheumatoid Arthritis

J1I-MC-GZBD	A Phase 2 Study of Once-Weekly LY3437943 Compared with Placebo and Dulaglutide in Participants with Type 2 Diabetes
J2A-MC-GZGE	A Phase 2 Study of Once-Daily LY3502970 Compared with Placebo and Once-Weekly Dulaglutide in Participants with Type 2 Diabetes Mellitus
J2A-MC-GZGS	A Phase 3, Open-Label Study of Once Daily LY3502970 Compared with Insulin Glargine in Adult Participants with Type 2 Diabetes and Obesity or Overweight at Increased Cardiovascular Risk (ACHIEVE-4)
J1V-MC-IMMA	A Master Protocol for a Randomized, Placebo-Controlled Clinical Trial of Multiple Interventions for the Treatment of Systemic Lupus Erythematosus
J1V-MC-BT01	A Multicenter, Randomized, Double-Blind, Placebo-Controlled, Parallel-Group, Two-Arm, Phase 2 Clinical Trial to Evaluate the Efficacy and Safety of LY3361237 as a Treatment for Adults with At Least Moderately Active Systemic Lupus Erythematosus
I4V-MC-JAJD (RA-Branch)	A Randomized, Controlled Pragmatic Phase 3B/4 Study of Baricitinib in Patients with Rheumatoid Arthritis
Gilead	
GS-US-431-4566	PENGUIN 1: A Phase 3, Randomized, Double blind, Placebo and Adalimumab-controlled Study to Evaluate the Efficacy and Safety of Filgotinib in Subjects with Active Psoriatic Arthritis Who Are Naïve to biologic DMARD Therapy
Horizon Therapeutics	
HZNP-KRY-405	A Phase 1b, Combined Single-Dose and Multiple-Dose, Multicenter, Randomized, Open-Label Trial to Assess Safety and

	Tolerability of Two Different Dose Levels of Subcutaneous Pegloticase in Subjects with Uncontrolled Gout Receiving Methotrexate
Janssen	
CNTO136ARA3002	A Multicenter, Randomized, Double-blind, Placebo-controlled, Parallel Group Study of CNTO 136 (sirukumab), a Human Anti-IL-6 Monoclonal Antibody, Administered Subcutaneously, in Subjects with Active Rheumatoid Arthritis Despite DMARD Therapy
CNTO136ARA3003	A Multicenter, Randomized, Double-blind, Placebo-controlled, Parallel Group Study of CNTO 136 (sirukumab), a Human Anti-IL-6 Monoclonal Antibody, Administered Subcutaneously, in Subjects with Active Rheumatoid Arthritis Despite Anti-TNF-alpha Therapy
CNTO136ARA3004	A Multicenter, Parallel-group Study of Long-term Safety and Efficacy of CNTO 136 (sirukumab) for Rheumatoid Arthritis in Subjects Completing Treatment in Studies CNTO136ARA3002 (SIRROUND-D) and CNTO136ARA3003 (SIRROUND-T)
CNTO 1959PSA4002 STAR	A Phase 4, Multicenter, Randomized, Double-blind, Placebo-controlled Study Evaluating the Efficacy and Safety of Guselkumab Administered Subcutaneously in Bio-naïve Participants with Active Psoriatic Arthritis Axial Disease
CNTO 1959PSA2003 AFFINITY	A Phase 2A, Multicenter, Randomized, Double-Blind Study Evaluating the Efficacy and Safety of Subcutaneously Administered Guselkumab and Golimumab Combination Therapy in Participants with Active Psoriatic Arthritis
KOS/Dupont Phann.	
Impact	Advicor Safety Trial

Labrys Biologics	
LBR-101-021	A Multicenter, Randomized, Double-Blind, Double Dummy, Placebo Controlled, Parallel Group, Multi-dose Study Comparing the Efficacy and Safety of Subcutaneous LBR-101 with Placebo for the Preventive Treatment of Chronic Migraine
LBR-101-022	A Multicenter, Randomized, Double-Blind, Placebo-Controlled, Parallel-Group, Study Comparing the Efficacy and Safety of Two Doses Subcutaneous LBR-101 with Placebo for the Preventive Treatment of High Frequency Episodic Migraine
Lundbeck	
Cluster 19386A	Interventional, randomized, double-blind, parallel-group, placebo-controlled delayed-start study to evaluate the efficacy and safety of eptinezumab in patients with episodic Cluster Headache
20007A	Interventional, randomized, double-blind, parallel-group, placebo-controlled study of add-on eptinezumab treatment to brief educational intervention for the preventative treatment of migraine in patients with dual diagnosis of migraine and medication overuse headache
Mayo Clinic	
MOTS	Determining the Optimal Treatment Strategy for Patients who have Chronic Migraine with Medication Overuse
Merck & Co., Inc.	
MK8931-017	A Randomized, Placebo-Controlled, Parallel-Group, Double Blind Efficacy and Safety Trial of MK-8931 with a Long Term Double-Blind

	Extension in Subjects with Mild to Moderate Alzheimer's Disease
Nico Worldwide	
13-001NI	Multi-Center, Double-Blind, Placebo Controlled, Pilot Study of Mycratine™ in Treatment of Acute Migraine
Nocira	
NC06	Automated Variable Pattern Insufflator device (AVPI) for the Acute Treatment of Migraine: a multicenter, double-blind, randomized, sham-controlled trial AVPI Migraine Study
Novartis	
CAIN457FUS06	A Phase 4, Randomized, Double-Blind, Parallel-Group, Multicenter Study of Secukinumab to Compare 300 mg and 150 mg at Week 52 in Patients with Ankylosing Spondylitis who are Randomized to Dose Escalation After not Achieving Inactive Disease During an Initial 16 Weeks of Open-Label Treatment with Secukinumab 150 mg (ASLeap)
Pharmalyte Solutions	
MLD10-002	A Multicenter, Randomized, Double-Blind, Placebo-Controlled Study Evaluating the Efficacy and Safety of MLD10 in the Prevention of Migraine Headache in Adults
Pzifer	
A3921133	Phase 3B/4 Randomized Safety Endpoint Study of 2 Doses of Tofacitinib in Comparision to a Tumor Necrosis Factor (TNF) Inhibitor in Subjects with Rheumatoid Arthritis
A3921187	A Phase 3B/4 Randomized Double-Blind Study of 5 mg Tofacitinib with and Without Methotrexate in Comparison to Adalimumab

	with Mexotrexate in Subject with Moderately to Severely Active Rheumatoid Arthritis
Satsuma Pharmaceuticals	
STS101-002	A Randomized, Double-Blind, Parallel Group, Placebo-Controlled,Multicenter Study to Evaluate the Efficacy, Safety, and Tolerability of Single Doses of STS101 (Dihydroergotamine Nasal Powder) in the Acute Treatment of Migraine
STS101-003	An Open-Label, 12-Month Study to Evaluate the Safety and Tolerability of STS101 (Dihydroergotamine Nasal Powder) in the Acute Treatment of Migraine
Scipher Medicine, Corp.	
Scipher-RA-002	Prospective Observational Trial to Validate the Ability of PrismRA to Predict Non-Responders to Anti-TNF Therapies
Sun Pharmaceuticals Global FZE	
TILD-19-07	A Phase III, Randomized, Double-Blind, Placebo-Controlled Study to Demonstrate the Efficacy and Safety of Tildrakizumab in Anti-TNF Experienced Subjects with Active Psoriatic Arthritis I (INSPIRE 1)
TILD-19-19	A Phase III, Randomized, Double-Blind, Placebo-Controlled Study to Demonstrate the Efficacy and Safety of Tildrakizumab in Anti-TNF Naïve Subjects with Active Psoriatic Arthritis II (INSPIRE 2)
TILD-21-01	An Open-Label Extension Study to Evaluate Long Term Safety and Efficacy of Tildrakizumab in Patients with Psoriatic Arthritis
Teva Pharmaceuticals	
TV48125-CNS-30049	A Multicenter, Randomized, Double-Blind, Placebo-Controlled, Parallel-Group Study

	Comparing the Efficacy and Safety of 2 Dose Regimens of Subcutaneous Administration of TEV-48125 Versus Placebo for the Preventive Treatment of Chronic Migraine
TV48125-CNS-30050	A Multicenter, Randomized, Double-Blind, Placebo-Controlled, Parallel-Group Study Comparing the Efficacy and Safety of 2 Dose Regimens of Subcutaneous Administration of TEV-48125 vs Placebo for the Preventive Treatment of Episodic Migraine
TV48125-CNS-30051	A Multicenter, Randomized, Double-Blind, Parallel-Group Study Evaluating the Long-Term Safety, Tolerability, and Efficacy of Subcutaneous Administration of TEV-48125 for the Preventive Treatment of Migraine
TV48215-CNS-20024	A Phase 2, Multicenter, Randomized, Proof-of-Concept, Double-Blind, Placebo-Controlled, Parallel-Group Study Comparing the Efficacy and Safety of 1 Subcutaneous Dose Regimen of Fremanezumab Versus Placebo for the Prevention of Persistent Posttraumatic Headache (PPTH)
TV48125-PN-20028	A Multicenter, Randomized, Double-Blind, Placebo-Controlled, Proof of Concept Study of the Efficacy and Safety of Fremanezumab for Treatment of Patients with Fibromyalgia (Concealed version)
Tian Medical, LLC	
12-004TI	Use of the Tx360® Nasal Applicator for Transnasal Sphenopalatine Ganglion Block in the Treatment of Chronic Migraine: A Double-Blind, Placebo Controlled Study
16-001TI	A Multicenter, Randomized, Double-Blind, Placebo-Controlled, Parallel 20 Week Study of the Efficacy and Safety of the Tx360® Nasal Applicator for Transnasal Sphenopalatine

	Ganglion Block in the Treatment of Chronic Migraine
Theranica	
TCH-003	A Randomized, Double-Blinded, Sham Controlled Clinical Study to Evaluate the Safety and Efficacy of the Nerivio Migra 1, a Neuromodulation Device, for the Acute Treatment of migraine
TCH-006	An open label, single arm, multicenter study assessing the efficacy and safety of Nerivio, a remote electrical neuromodulation device, for acute treatment of migraine in people with chronic migraine
TCH-008	A prospective, Randomized, double-blind, sham-controlled multi-center clinical study assessing the safety and efficacy of Nerivio for the preventive treatment of migraine
Tonix	
TNX-OX-CM201	A Phase 2, Double-Blind, Randomized, Multicenter, Placebo-Controlled, Three-Arm Parallel Study to Evaluate the Efficacy and Safety of TNX-1900 (Intranasal Oxytocin) in Patients with Chronic Migraine
Vorso	
VC2020-7	Researching the safety and efficacy the Vorso PROTECT System for the treatment of subjects with active rheumatoid arthritis who are naïve to biologic or synthetic disease modifying agents (the PROTECTION study
VC2020-12	A Randomized, Double-Blind, Sham-Controlled Study of Noninvasive Auricular Stimulation in Participants with Episodic Migraine (the GUARD Study)