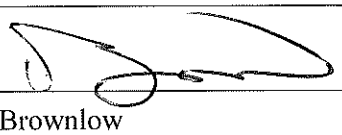
BioSolutions Clinical Research Center

CURRICULUM VITAE

SIGNATURE:		**DATE:**	16 SEP 2020
NAME: **TITLE:**	Roy C. Brownlow Principal Investigator	**DATE UPDATED:**	Sep 2020

RESEARCH SITE ADDRESS & PHONE:

Main Office: BioSolutions Clinical Research Center 5565 Grossmont Center Dr. Bldg. 3 Suite 253 La Mesa CA 91942	 Office: (619) 637-0770 Fax: (619) 713-0156 Email: drbrownlow@biosolutionsresearch.com

EDUCATION/TRAINING:

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	YEAR(s)	FIELD OF STUDY
North Carolina Baptist Hospital Winston-Salem, NC	Residency	1988-1991	Anesthesia
North Carolina Baptist Hospital Winston-Salem, NC	Internship	1987-1988	General Surgery
Wake Forest University Winston-Salem, NC	Doctor of Medicine	1982-1987	M.D.
East Carolina University Greenville, NC	Master's	1978-1982	Education
East Carolina University Greenville, NC	B.S.	1974-1978	Biology

BOARD CERTIFIED:

BOARD CERTIFIED/ELIGIBLE	YEAR(s)	SPECIALTY
Board Certified	1991	Physician and Surgeon

POSITIONS AND EMPLOYMENT:

2020-Present	Investigator, BioSolutions Clinical Research Center, La Mesa, CA
2018-Present	Physician/Anesthesiologist, California Pain and Spine Care., La Mesa, CA
2015-Present	Physician, Newnan Plaza Pharmacy, Newnan, GA
2013-Present	Physician/Anesthesiologist, White Oak Surgery Center, Newnan GA
2013-Present	Physician, Care Plus Pharmacy, Newnan, GA

2008-Present	Physician/Pain Management Specialist, Georgia Pain and Spine Care, Inc., Newnan, GA
2008-Present	Principal Investigator, Better Health Clinical Research, Inc., Newnan, GA
2005-2008	Sub-Investigator, Drug Studies America, Marietta, GA
1999-2008	Pain Management Specialist, Pain Solutions Treatment Centers, Marietta, GA
1998-1999	Pain Management Specialist, Coast Pain Management, San Diego, CA
1996-1998	Staff Anesthesiologist and Pain Management Specialist, Northside Hospital, Atlanta, GA
1996-1996	Staff Anesthesiologist and Pain Management Specialist, Kaiser Permanente, San Diego, CA
1994-1996	Anesthesiologist and Pain Management Specialist, JLR Anesthesia Group, Orlando, FL
1991-1994	Anesthesiologist and Pain Management Specialist, U.S. Naval Medical Center, San Diego, CA

PROCEDURAL SKILLS:

Spinal Cord Stimulation
DRG Stimulators
IT Pumps
Vertiflex
MILD
Radiofrequency Ablation
Epidural Steroid Injections
Ultrasound Diagnostics
Ultrasound Guided Injections
Peripheral Nerve Blocks
Discography: Cervical, Thoracic, and Lumbar
Joint Injections

CERTIFICATIONS:

Certified Principal Investigator (CPI), Association of Clinical Research Professionals
Diplomate, American Board of Anesthesiology
ABA Certificate of Added Qualifications in Pain Management
Diplomate, American Academy of Pain Management
Diplomate, American Academy of Pain Medicine
Fellow in Interventional Pain Practice, WIP & ASIPP
Certified in American Acupuncture

CLINICAL RESEARCH EXPERIENCE:

1. "A Study of the Efficacy and Safety of XXXX Extended Release (XXER) Compared to Placebo in Patients with Chronic Pain." (Sub-Investigator)

2. "A Randomized, Double-Blind, Two-Period Crossover Study Comparing the Efficacy, Safety, and Tolerability of XXXX (XXXX, controlled release) and XXXX (XXXX, controlled release) in Cancer Patients Who Require Opioid Treatments." (Sub-Investigator)

3. "An Open-Label Extension study to evaluate the Long-Term Safety, Tolerability, and Analgesic Efficacy of XXXX (XXXX, controlled release) in Subjects with Cancer Pain or Chronic Lower Back Pain." (Sub-Investigator)

4. "A prospective, Open-Label, Multicenter Study of the Effectiveness and Safety of XXXX as Add-on Treatment in Patients with Post-herpetic Neuralgia, Diabetic Neuropathy, or Low Back Pain." (Sub-Investigator)

5. "A Prospective, Multicenter, Open-Label Study of the Effectiveness and Safety of XXXX and Add-on or Mono-therapy in Patients with Pain from Osteoarthritis in One or Both Knees." (Sub-Investigator)

6. "A Study of the Efficacy and Safety of XXXX (XXXX, extended release) Compared to Placebo in Subjects with Persistent Pain." (Sub-Investigator)

7. "A phase 3, Randomized, Multicenter, Double-Blind Study Comparing the Analgesic Efficacy of Extended Release XXXX Tablets (XXXX) to Placebo in Subjects with Osteoarthritis." (Principal Investigator)

8. "A Multi-Center, Double-Blind, Randomized, Placebo-Controlled, Multiple Dose, Parallel Design, Dose Ranging Study of the Safety and Efficacy of XXXX in Painful Diabetic Peripheral Neuropathy." (Sub-Investigator)

9. "XXXX Phase III Clinical Trial: A Twenty Four Week, Randomized Double-Blind, Placebo Controlled, Safety and Efficacy Trial of XXXX 50 and 100 Milligrams Each Evening in Premenopausal Women With Hypoactive Sexual Desire Disorder." (Sub-Investigator)

10. "An Open Label, 12-Month Study to Evaluate the Safety, Tolerability, and Efficacy of XXXX for the Management of Breakthrough Pain in Opioid Tolerant Patients with Chronic Non-cancer Pain." (Sub-Investigator)

11. "A Double-Blind, Randomized, Placebo-Controlled Study to Evaluate the Efficacy and Safety of XXXX for the Management of Breakthrough Pain in Opioid-Tolerant Patients with Chronic Neuropathic Pain." (Sub-Investigator)

12. "A Double-Blind, Randomized, Placebo-Controlled Study to Evaluate the Efficacy and Safety of XXXX for the Management of Breakthrough Pain in Opioid-Tolerant Patients with Chronic Low Back Pain." (Sub-Investigator)

13. "A 12-Week, Open-Label Study With 3 Within-Patient Double-Blind Placebo-Controlled Periods to Evaluate the Efficacy and Safety of XXXX Treatment for the Management of Breakthrough Pain in Opioid-Tolerant Patients With Non-Cancer-Related Chronic Pain." (Sub-Investigator

14. "A Multi-Center, Double-Blind, Placebo-Controlled Randomized Study of XXXX 200 mg, XXXX 300 mg, and XXXX 400 mg in the Treatment of Chronic Low Back Pain." (Sub-Investigator)

15. "A Multi-Center, Standard of Care-Controlled Study to Evaluate the Long – Term Safety of XXXX for the Treatment of Chronic Low Back Pain." (Sub-Investigator)

16. "A Double-Blind, Randomized, Placebo-Controlled, Multicenter Study to Evaluate the Efficacy and Safety of XXXX for Treatment of Breakthrough Pain In Opioid Tolerant Cancer Patients Followed by an up to 12 -Month, Non-Randomized, Open-Label Extension to Assess Long-Term Safety." (Sub-Investigator)

17. "A randomized, multi-center, double blind, parallel-group study assessing the analgesic efficacy and safety of different dosages of XXXX *bid* compared to active comparator *bid* and placebo *bid* in subjects with chronic knee-joint osteoarthritis." (Sub-Investigator)

18. A Randomized, Double-Blind, Placebo-Controlled, Multicenter Phase 3 Study to Evaluate the Efficacy and Safety of XXXX 0.5mg Once Daily and 0.5mg Twice Daily for 12 Weeks for the Treatment of Opioid-Induced Bowel Dysfunction in Adults taking Opioid Therapy for Persistent Non-Cancer Pain." (Sub-Investigator)

19. "A Randomized, Double-Blind, Placebo-Controlled, Multicenter Phase 3 Study to Evaluate the Long-Term Safety of XXXX 0.5mg Twice Daily for 12 Months for the Treatment of Opioid-Induced Bowel Dysfunction in Adults taking Opioid Therapy for Persistent Non-Cancer Pain." (Sub-Investigator)

20. "An observational study to characterize the burden of illness associated with laxative use in subjects using opioids for the management of persistent pain." (Sub-Investigator)

21. "A Randomized, Double-Blind, Active-Control, Parallel Group, 90-Day Safety Study of XXXX Immediate Release or XXXX Immediate Release in Subjects With Chronic Pain From Low Back Pain or Osteoarthritis of the Hip or Knee." (Sub-Investigator)

22. "A Double-Blind, Randomized, Placebo-Controlled Study of XXXX and XXXX in Patients with Excessive Daytime Sleepiness Due to Opioid Therapy." (Sub-Investigator)

23. "A Randomized, Double-Blind, Controlled Study of XXXX for the Treatment of Postherpetic Neuralgia." (Sub-Investigator)

24. "A Multicenter Randomized, Double-Blind, Controlled Study of XXXX for the Treatment of Post herpetic Neuralgia." (Sub-Investigator)

25. "A multi-center, Open Label, Phase 2 Study of XXXX For the Treatment of Neuropathic Pain in Patients with Painful HIV-Associated Neuropathy (HIV-AN) or Post herpetic Neuralgia (PHN)." (Sub-Investigator)

26. "An Open-Label Safety Study With Intermittent Use of XXX in Subjects with Lower Back Pain, Pain From osteoarthritis of the Knee, Shoulder Pain or Lateral Epicondylitis Pain." (Sub-Investigator)

27. "A Long-Term, Open-Label, Safety Study of XXXX and Low-Dose XXXX in Patients with Moderate to Severe Chronic Low Back Pain or with Moderate to Severe Chronic Pain Due to Osteoarthritis of the Hip or Knee." (Sub-Investigator)

28. "A Multi-Center, Randomized, Double-Blind, Placebo-Controlled, Phase III, Efficacy & Safety Study of XXX in Patients with Moderate to Severe Chronic Pain Due to Osteoarthritis of the Hip or Knee." (Sub-Investigator)

29. "A Long-Term, Open-Label, Safety Study of XXXX in Patients with Moderate to Severe Chronic Low Back Pain or with Moderate to Severe Chronic Pain Due to Osteoarthritis of the Hip or Knee." (Sub-Investigator)

30. "A Multi-center, Open-label, Follow-on Trial to Assess the Long-term Safety and Efficacy of XXXX in Subjects with Painful Distal Diabetic Neuropathy." (Sub-Investigator)

31. "A Multi-Center, Randomized, Double-Blind, Placebo-Controlled, Parallel-Group Trial to Assess the Efficacy and Safety of XXXX (200, 400, and 600 mg/day) in Subjects with Painful Distal Diabetic Neuropathy." (Sub-Investigator)

32. "A Randomized, Double Blind, Placebo-Controlled, Parallel Group Study to Demonstrate the Subjective Treatment Effects of XXXX on Sleep using a Post Sleep Questionnaire-Interactive Voice Response System (PSQ-IVRS) in an "At-Home Setting" in an Adult Population with Chronic Insomnia." (Sub-Investigator)

33. "A Multi-Center, Randomized, Double-Blind, Placebo-Controlled, Parallel Group Study of Oral XXXX for the Treatment of Opioid-Induced Bowel Dysfunction in Subjects with Chronic Non-Malignant Pain." (Sub-Investigator)

34. "A Double-Blind, Placebo-Controlled, Multiple Crossover Proof-of-Concept Study to Evaluate the Efficacy of XXXX Applied over a XXXX for the Treatment of Breakthrough Pain in Patients with Moderate to Severe Non-malignant Chronic Pain." (Sub-Investigator)

35. "An Open-Label, Long-Term Safety Study to Evaluate the Safety of the XXXX for the Treatment of Moderate to Severe Non-Malignant Chronic Pain." (Sub-Investigator)

36. "Opioid Utilization Study in Chronic Non-Cancer Pain" 2008 (Principal Investigator)

37. "Open-label, Multi-center Safety Trial of XXXX for the Treatment of Breakthrough Cancer Pain" 2008. (Principal Investigator)

38. "A Randomized, Double-Blind, Active Controlled Crossover Study to Evaluate the Efficacy and Safety of XXXX Compared With XXXX for the Management of Breakthrough Pain in Opioid-Tolerant Patients With Chronic Pain, Followed by a 12 Week Open Label Extension to Evaluate the Impact of XXXX on Patient Outcomes." 2009 – 2010. (Principal Investigator)

39. "A Multicenter, Randomized, Placebo-Controlled, Crossover Study for the Evaluation of the Safety, Tolerability, and Efficacy of XXX-XXX Compared to Placebo in the Treatment of Cancer Breakthrough Pain." 2009 – 2010. (Principal Investigator)

40. "A Randomized, Double-Blind, Placebo-Controlled Multi-Center Study to Evaluate the Safety and Efficacy of XXXXXXXX Sublingual Spray (XXXXXXXX SL Spray) for the Treatment of Breakthrough Cancer Pain," 2010. (Principal Investigator)

41. "A Prospective, Multi-Centered Clinical Evaluation of the Eon™ Mini 16-Channel Implantable Pulse Generator (IPG) in Combination with Paddle Lead(s) for the Management of Chronic Pain of the Trunk and/or Limbs," 2010 – 2014. (Principal Investigator)

42. "A Phase 3B Multicenter, Double-Blind, Randomized Withdrawal Efficacy and Safety Study of XXXXXXXXXX in the Treatment of Patients with Inadequately Treated Painful Diabetic Peripheral Neuropathy," 2010 – 2011. (Principal Investigator)

43. "A 12-Week, Randomized, Double-Blind, Placebo-Controlled, Parallel-Group Study of the Efficacy and Safety of XXXXXXXXX (XXX Patch) in Patients with Chronic Low Back Pain," 2010 – 2011. (Principal Investigator)

44. "A Long-Term Open-Label Safety Study of XXXXXXXXXXX XXXXXXXXXX-Controlled Release Capsules (HC-CR) with Flexible Dosing to Treat Subjects with Moderate to Severe Chronic Pain," 2010 – 2011. (Principal Investigator)

45. "A 12-Month, Open-Label Study to Evaluate the Long-Term Safety of XXXXXXXXXXX XXXXXXXXXX Extended-Release Tablets (XXX-33237) at 15 to 90 mg Twice a Day in Patients Who Require Opioid Treatment for an Extended Period of Time." 2010 – 2012. (Principal Investigator)

46. "A 12 Week, Randomized, Double-Blind, Placebo-Controlled Study to Evaluate the Efficacy and Safety of XXXXXXXXXXX XXXXXXXXXX Extended-Release Tablets (XXX-33237) at 15 to 90 mg Every 12 Hours for Relief of Moderate to Severe Pain in Patients With Osteoarthritis or Low Back Pain Who Require Opioid Treatment for an Extended Period of Time," 2010 – 2011. (Principal Investigator)

47. "Evaluation of the EMBEDA™ Risk Evaluation and Mitigation Strategy (REMS) Education and Communication Program: Patients," 2010. (Principal Investigator)

48. "A Multi-centre, Parallel, Double-Blind, Blinded Evaluator, Randomized, Placebo Controlled Study to Evaluate the Safety and Effectiveness of a New Viscoelastic Hydrogel (XXXXXXX™) in the Treatment of Knee Osteoarthritis with an Open-Label Extension." 2011 – 2012 (Principal Investigator)

49. "RA0056 - Phase II - A Randomized, Double-Blind, Placebo-Controlled, Dose Ranging Study with an active Comparator to evaluate the efficacy and safety of CDP6038 administered subcutaneously for 12 weeks to subjects with active Rheumatoid Arthritis having previously failed TNF-Blocker Therapy." 2011. (Sub-Investigator)

50. "A Phase II, Randomized, Double Blind, Placebo-controlled, Multicenter Study to Investigate the Inpact of NP2 in Subjects with Intractable Pain due to Malignancy." 2011-2012. (Principal Investigator)

51. "Long-term Allopurinol Safety Study Evaluating Outcomes in Gout Patients (LASSO)." 2011 – 2012. (Principal Investigator)

52. "A Phase 3 Randomized, Double-Blind, Multicenter, Placebo-Controlled, Combination Study to Evaluate the Efficacy and Safety of XXXXXXXXX and Allopurinol Compared to Allopurinol Alone in Subjects with Gout who have had an Inadequate Hypouricemic Response to Standard of Care Allopurinol." 2012 – 2013. (Principal Investigator)

53. "A Phase 3 Randomized, Double-Blind, Multicenter, Placebo-Controlled, Study to Evaluate the Efficacy and Safety of XXXXXXXXX Monotherapy Compared to Placebo in Subjects with Gout and an Intolerance or Contraindication to a Xanthine Oxidase Inhibitor." 2012 – 2013. (Principal Investigator)

54. "A Phase 3 Randomized, Double-Blind, Multicenter, Placebo-Controlled, Combination Study to Evaluate the Efficacy and Safety of XXXXXXXXX and Febuxostat Compared to Febuxostat Alone at Lowering Serum Uric Acid and Resolving Tophi in Subjects with Tophaceous Gout." 2012 – 2014. (Principal Investigator)

55. "A Randomized, Double-blind, Placebo-controlled, Multicenter Trial with an Enriched Study Design to Assess the Efficacy and Safety of XXXXXXXXX/XXXXXXXX Controlled-release Tablets (XXX) Compared to Placebo in Opioid-experienced Subjects with Moderate to Severe Pain due to Chronic Low Back Pain who Require Around-the-clock Opioid Therapy." 2011 – 2012. (Principal Investigator)

56. "A Multicenter, Randomized, Double-blind, Placebo-controlled Study With an Open-Label Run-in to Assess the Efficacy and Safety of XXXXXXXXXX XXXXXXXXX (XXX) Tablets 20 to 120 mg Once-daily in Subjects with Moderate to Severe Chronic Low Back Pain." 2012 – 2014. (Principal Investigator)

57. "APhase 3, Double-Blind, Placebo-Controlled, Multicenter, Randomized Withdrawal Study to Evaluate the Analgesic Efficacy, Safety, and Tolerability of XXXX XXXXXXXXXXXX in Opioid-Experienced Subjects with Moderate to Severe Chronic Low Back Pain Requiring Around-the-Clock Opioid Analgesia for an Extended Period of Time." 2013 – 2014. (Principal Investigator)

58. "A 12-Week, Randomized, Double-Blind, Placebo-Controlled, Randomized-Withdrawal Study to Evaluate the Efficacy and Safety of XXXXXXXXXX XXXXXXXXX Extended-Release Tablets (XXX-XXXXX) at 30 to 90 mg Every 12 Hours for Relief of Moderate to Severe Pain in Patients with Chronic Low Back Pain Who Require Opioid Treatment for an Extended Period of Time." 2013 – 2014. (Principal Investigator)

59. "A 6-Month, Open-Label, Extension Study to Evaluate the Safety of XXXXXXXXXX XXXXXXXXX Extended-Release Tablets (XXX-XXXXX) at 15 to 90 mg Every 12 Hours for Relief of Moderate to Severe Pain in Patients with Chronic Low Back Pain Who Require Opioid Treatment for an Extended Period of Time." 2014. (Principal Investigator)

60. "A Multicenter, Randomized, Double Blind, Placebo Controlled, Phase 3 Study of XX XXXX for the Treatment of Opioid Induced Constipation in Adults Taking Opioid Therapy for Non Cancer Pain." 2013 – 2014. (Principal Investigator)

61. "A Multicenter, Randomized, Double-Blind, Placebo-Controlled, Phase 3 Study to Evaluate the Long-Term Safety and Tolerability of XX XXXX for the Treatment of Opioid-Induced Constipation in Adults Taking Opioid Therapy for Chronic Non-Cancer Pain." 2013 – 2014. (Principal Investigator)

62. "A Long-Term Extension Study of XXXXXXXXX in Combination with Febuxostat for Subjects with Gout Completing an Efficacy and Safety Study of XXXXXXXXX and Febuxostat." 2013 – 2016. (Principal Investigator)

63. "A Long-Term Open-Label Extension Study for Subjects Completing a Phase 3 Efficacy and Safety Study of XXXXXXXXX Monotherapy in Subjects with Gout." 2013. (Principal Investigator)

64. "A Double-Blind, Randomized, Placebo-Controlled, Parallel Group Study of XXXXXXX Oromucosal Spray (XXXXXXX) as Adjunctive Therapy in Relieving Uncontrolled Persistent Chronic Pain in Patients with Advanced Cancer Who Experience Inadequate Analgesia During Optimized Chronic Opioid Therapy." 2013 – 2014. (Principal Investigator)

65. "A Multicenter, Non-Comparative, Open-Label Extension Study to Assess the Long-Term Safety of XXXXXXX Oromucosal Spray (XXXXXXX) as Adjunctive Therapy in Patients with Uncontrolled Persistent Chronic Cancer Related Pain." 2013 – 2016. (Principal Investigator)

66. "A Double-Blind, Randomized, Placebo-Controlled, Parallel Group Study of XXXXXXX Oromucosal Spray (XXXXXXX) as Adjunctive Therapy in Relieving Uncontrolled Persistent Chronic Pain in Patients with Advanced Cancer Who Experience Inadequate Analgesia During Optimized Chronic Opioid Therapy." 2014 – 2015. (Principal Investigator)

67. "A Multicenter, Randomized, Double-blind, Controlled, Comparative Study of XXXXXXX in Patients with Lumbar Disc Herniation (Phase III)." 2014 – 2017. (Principal Investigator)

68. "A Multicenter, Open-label Study of XXXXXXX in Patients with Lumbar Disc Herniation (Phase III), 2015 – 2017. (Principal Investigator)

69. "A Phase 2 Randomized, Double-Blind, Placebo-Controlled Crossover Study to evaluate the safety, tolerability and preliminary efficacy of XXXXXXX in combination with Pregabalin in subjects with Painful Diabetic Neuropathy and Good Pain-Reporting Ability." 2014.

70. "A Phase 3, Randomized, Double Blind, Multicenter, Placebo Controlled Study to Evaluate the Efficacy and Safety of XXXXXXXXXX 40 mg XR, 80 mg XR, 40 mg IR and 80 mg IR in Subjects with Gout." 2014 – 2015. (Principal Investigator)

71. "A Randomized, Double Blind, Placebo- and Active-Controlled, 4 Week, Multi-Center, Parallel Group Study Assessing the Analgesic Effect, Safety and Tolerability of XX-XXXXXXXX in Subjects with Chronic Low Back Pain Using Naproxen as a Positive Control." 2014 – 2015. (Principal Investigator)

72. "A Randomized, Double-Blind, Trial Investigating the Efficacy and Safety of Intravenous XXXXXXXXXXX in Subjects with Complex Regional Pain Syndrome Type I (CRPS-I)." 2015 – 2016. (Principal Investigator)

73. "A Phase 3, Randomized, Double Blind, Placebo and Active-Controlled, Multicenter, Parallel-Group Study of the Analgesic Efficacy and Safety of XXXXXXXXX in Adult Subjects with Chronic Low Back Pain." 2015 – present. (Principal Investigator)

74. "A Phase 3, Randomized, Double Blind, Active-Controlled Multicenter Study of the Long-Term Safety and Efficacy of Subcutaneous Administration of XXXXXXXXX in Subjects with Osteoarthritis of the Hip or Knee." 2016 – present. (Principal Investigator)

75. "A Phase 3, Multicenter, Long-Term Observational Study of Subjects from XXXXXXXXX studies who undergo a total knee, hip or shoulder replacement." 2015 – present. (Principal Investigator)

76. "A Phase 3, Multicenter, Open-Label, Single-Arm Safety Trial of Intravenous XXXXXXXXXX XXXX in Subjects with Complex Regional Pain Syndrome (CRPS)." 2017 – present. (Principal Investigator)

77. "A Phase 3, Randomized, Double-Blind, Placebo-Controlled Study to Evaluate the Efficacy and Safety of XXXXXX in Patients with Moderate-to-Severe Chronic Low Back Pain and Osteoarthritis of the Hip or Knee." 2018 – present.
(Principal Investigator)

78. "A Phase 3, Multicenter, Double-Blind, Parallel-Group, 24 Month Study to Evaluate the Efficacy and Safety of XXXXXX in Subjects with Early Alzheimer's Disease." 2018 – 2019. (Sub-Investigator)

79. "A Phase 3, Double-Blind (DB), Randomized, Placebo-Controlled, Multicenter Study in Subjects with Lumbosacral Radicular Pain evaluating the Safety and Efficacy of a Single XXXXXX TF Injection compared to a Single Placebo IM Injection, followed by an Open-Label Safety Extension." 2018 – present. (Principal Investigator)

80. "A prospective, single-arm, multi-center registry intended to collect clinical experience with the use of XXXXXX in the treatment of moderate degenerative lumbar spinal stenosis." 2018 – present. (Principal Investigator)

81. "A Phase 3, Multicenter, Randomized, Double-Blind, Placebo-Controlled, 2-Arm, Trial of Intravenous XXXXXXXXXX XXXX in Subjects with Complex Regional Pain Syndrome (CRPS)." 2018 – Present. (Principal Investigator)

82. "A Postmarket Registry in Subjects with Moderate Degenerative Lumbar Spinal Stenosis using the XXXXXXXX System ." 2018 – Present. (Principal Investigator)

83. "A Multi-Center, Randomized, Controlled, Double-blind Study Evaluating Safety and Efficacy of XXXXXXXX XXXXXXXXX for Treatment of Lumbar, Thoracic and Cervical Discogenic Pain." 2017 – 2019. (Principal Investigator)

84. "A Prospective, Multi-Center, Single-Arm Post Approval Study in Subjects with Complex Regional Pain Syndrome (CRPS I or II) or Peripheral Causalgia that receive a Permanent Implant to access Safety and Efficacy of XXX XXXXXXXXXXX." 2018 – Present. (Principal Investigator)

85. "A Phase 3, Randomized, Double-blind, Placebo-Controlled, 2-Injection, 52-Week Study to Evaluate the Efficacy and Safety of Intra-articular Injections of XXXXXXXXXXXX in subjects with Chronic, Moderate-to-Severe Osteoarthritis Knee Pain." 2018- Present. (Principal Investigator)