Stephen W.P. Kemp, Ph.D.
The University of Michigan
Department of Plastic Surgery
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Education and Training

09/1994 - 06/1998	University of Toronto, BSc Neuroscience
09/1999 - 06/2001	Wilfrid Laurier University, MA Psychology
01/2005 - 06/2010	University of Calgary, PhD Neuroscience
08/2010 - 09/2013	The Hospital for Sick Children, University of Toronto, Postdoctoral Fellow, Plastic and Reconstructive Surgery
09/2013 – 09/2014	The Hospital for Sick Children, University of Toronto, Postdoctoral Fellow, Neuroscience
09/2014 – 03/2016	University of Toronto, Postdoctoral Fellow, Physiology

Academic, Research and Teaching Appointments

1998-2005	Research Assistant, University of Toronto, Toronto, Canada
1999-2001	Research Assistant, Wilfrid Laurier University, Waterloo, Canada
1999-2001	Teaching Assistant, Wilfrid Laurier University, Waterloo, Canada
2005-2010	Doctoral Student, University of Calgary, Calgary, Canada
2010-2014	Postdoctoral Fellow, The Hospital for Sick Children, Toronto, Canada
2014-2016	Postdoctoral Fellow, The University of Toronto, Toronto, Canada
2016-2020	Assistant Research Professor, University of Michigan, Ann Arbor, USA
2020-2024	Associate Research Professor, University of Michigan, Ann Arbor, USA
2024-Present	Associate Professor with Tenure, University of Michigan, Ann Arbor, USA

Research Interests

1. Neural injury
2. Nerve regeneration
3. Behavior
4. Functional recovery
5. Pain

Grants

Current Grants

1. Principal Investigator, "Physiologic Signaling and Exoskeleton Control of the Muscle Cuff Regenerative Peripheral Nerve Interface (MC-RPNI) During Volitional Behavior". Department of Defense Peer Reviewed Medical Research Program (PRMRP) for the Office of the Congressionally Directed Medical Research Program (CDMRP). $2,500,000, 06/15/2021-06/15/2026.

2. Co-Investigator, "A biomimetic approach to sensory restoration using a biologic nerve interface". Plastic Surgery Foundation, National Endowment for Plastic Surgery Grant. $50,000. 07/01/2024-06/30/2026.
3. Principal Investigator, "Exoskeleton Control with the Muscle Cuff Regenerative Peripheral Nerve Interface (MC-RPNI) for Restoring Lower Limb Function Following Traumatic Musculoskeletal Injury". Department of Defense Peer Reviewed Orthopaedic Research Program (PRORP) for the Office of the Congressionally Directed Medical Research Program (CDMRP). $ 2,499,688. 07/01/2025-6/30/2029.
4. Principal Investigator, "A Novel Model for Restoration of Sensation in Peripheral Diabetic Neuropathy". Plastic Surgery Foundation, Pilot Grant. $15,000. 07/01/2025-06/30/2026.

Previous Grants

1. Principal Investigator, "Treatment of Nerve Injuries with P7C3", The Plastic Surgery Foundation, Pilot Research Grant (PRG). $10,000, 05/01/2012 – 05/01/2013.
2. Co- Principle Investigator, "Enhancement of nerve regeneration with aminopropyl carbazoles following nerve injury", The PSI Foundation Research Grant. $20,000, 03/01/2013 – 03/01/2014.
3. Principal Investigator. Laboratory Start-up Funds. University of Michigan, Department of Surgery, Plastic Surgery Section. $300,000, 04/01/2016-04/01/2020.
4. Principal Investigator, "Autologous Adipose Tissue Supplementation Potentiating Nerve Fiber Regeneration", American Society for Peripheral Nerve-The Plastic Surgery Foundation Joint Pilot Research Grant. $10,000, 07/01/2016-12/01/2017.
5. Co-Investigator, Taubman Research Scholars Program, University of Michigan, $200,000, 01/01/2017.
6. Principal Investigator. "Regenerative Peripheral Nerve Interfaces for the Treatment of Painful Neuromas", American Society for Peripheral Nerve-The Plastic Surgery Foundation Joint Pilot Research Grant. $10,000, 07/01/2017-07/01/2018.
7. Principal Investigator, "Regenerative Peripheral Nerve Interfaces Using Composite Free Muscle and Dermal Constructs", National Institute of Health (NIH), R21. $427,750, 10/01/2017-10/01/2019.
8. Co-Investigator, "Providing Intuitive Prosthetic Movement and Sensation", Department of Defense, Department of Navy, $100,000, 01/01/2018-12/31/2019.
9. Principal Investigator, "Multichannel Carbon Fiber Electrodes to Enhance Nerve Regeneration", American Society for Peripheral Nerve-The Plastic Surgery Foundation Joint Pilot Research Grant. $10,000, 07/01/2018-07/01/2019.
10. Co-Investigator, "Viability and Signaling of the Muscle Cuff Regenerative Peripheral Nerve Interface", The Plastic Surgery Foundation Pilot Research Grant. $10,000, 07/01/2018-07/01/2019.
11. Principal Investigator, "High-Fidelity, Multichannel Carbon Fiber Electrodes to Enhance Nerve Regeneration", American Foundation for Surgery of the Hand, $20,000, 09/01/2018-09/01/2019.
12. Principle Investigator, "Behavioral Validation of a Combined Musculo-cutaneous Neuroprosthetic Interface", The Plastic Surgery Foundation Pilot Research Grant. $10,000, 08/01/2019-07/31/2020.
13. Co-Investigator, "Highly Compliant Microneedle Arrays for Peripheral Nerve Mapping", National Institute of Health (NIH), SPARC. $2,000,000, 10/01/2017-10/01/2020.

14. Principal Investigator, "Fat Grafting to Enhance Nerve Regeneration After Delayed Nerve Repair". American Society for Peripheral Nerve-The Plastic Surgery Foundation Joint Pilot Research Grant, $10,000, 07/01/2020-06/30/2021.
15. Co-Investigator, "Sensory Interface for Re-establishment of Sensory Feedback in Afferents after Peripheral Nerve Injury. Plastic Surgery Foundation – American Society for Peripheral Nerve Combined Pilot Grant. $10,000. 07/01/2021-06/30/2021.
16. Principal Investigator. "Regenerative Peripheral Nerve Interfaces for the Treatment of Painful Neuromas in Major Limb Amputees", Department of Defense Peer Reviewed Orthopaedic Research Program (PRORP) for the Office of the Congressionally Directed Medical Research Program (CDMRP). $1,980,203, 07/01/2017-09/01/2022.
17. Co-Investigator, "Normathermic Ex-situ Limb Reperfusion Using Red Blood Cells and Plasma: Critical Component Analysis". Department of Defense Reconstructive Transplant Research Program (RTRP) for the Office of the Congressionally Directed Medical Research Program (CDMRP). $476,222, 2/1/2021-11/31/2022.
18. Co-Investigator, "Regenerative Peripheral Nerve Interfaces for Restoring Individual Finger Movement in People with Upper Limb Amputees." National Institute of Health (NIH), RO1, $2,116,227, 7/15/2018-7/15/2023.
19. Co-Investigator, "Developing the C-RPNI as a multimodal sensory and motor neuroprosthetic interface". American Foundation for Surgery of the Hand (AFSH), $26,250. 09/01/2022-08/31/2023. **J. Leonard Goldner Pioneer Research Basic Science Award.**
20. Principal Investigator, "Regenerative Peripheral Nerve Interfaces (RPNIs) for Surface Myoelectric Control of a Novel Powered Finger Partial Hand Prosthesis". Department of Defense Peer Reviewed Orthopedic Research Program (PRORP for the Office of the Congressionally Directed Medical Research Program (CDMRP). $1,131,000, 08/01/2021-09/30/2024.
21. Principal Investigator, "Nerve Regeneration and Functional Recovery Following Delayed RPNI". American Society for Peripheral Nerve/Plastic Surgery Foundation joint Pilot Grant. $10,000. 07/31/2024-07/30/2025.

Student Mentored Grants
1. UMMS Student Biomedical Research Program (SBRP) Summer Fellowship. Awarded to Ali vanBelkum, $4,500, 03/21/16.
2. UMMS Student Biomedical Research Program (SBRP) Summer Fellowship. Awarded to Jason Kessler, $4,500, 03/21/17.
3. UMMS Student Biomedical Research Program (SBRP) Summer Fellowship. Awarded to Brian Cleary, $4500, 03/21/17.
4. NIH T-32 Surgical Scientist Training Grant in Translational Research. Awarded to Dr. Carrie Kubiak, $52,000, 07/01/17-07/01/19.
5. PSF Plastic Surgery Research Fellowship. Awarded to Dr. Shelby Svientek, $50,000, 07/01/19-07/01/20.
6. NIH F32 Postdoctoral Fellowship (funded through NICHD). Multichannel, High-fidelity Carbon Fiber Electrodes to Enhance Composite Regenerative Peripheral Nerve Interfaces. Awarded to Dr. Shelby Svientek, $138,352, 09/01/2019-09/31/2021.
7. Undergraduate Research Opportunity Progam (UROP) Summer Studentship. Awarded to Jagienka Timek, $4,500, Summer 2020.

8. NIH LRP (funded through NIBIB). Composite Free Muscle and Dermal Constructs as a Regenerative Peripheral Nerve Interface. Awarded to Dr. Shelby Svientek, $70,000, 8/01/2019-07/31/2021.
9. PSF Plastic Surgery Research Fellowship. Awarded to Dr. Amir Dehdashtian, $50,000. 07/01/2021-06/30/2022.
10. PSF Plastic Surgery Research Fellowship. Awarded to Dr. Widya Adidharma, $50,000. 07/01/2022-06/30/2023.
11. PSF Plastic Surgery Research Fellowship. Awarded to Dr. Ahneesh Mohanty, $50,000. 07/01/2025-06/30/2026.

External Grant Panel Scientific Reviewer

1. Stimulating Peripheral Activity to Relieve Conditions (SPARC) program, NIH. 2018-present
2. Transferring Technology for the Warfighter (TTU), Uniformed Services University (USU). 2018 – present.
3. Small Projects in Rehabilitation Research (SPiRE), Department of Veteran Affairs, Rehabilitation Research and Development Service's Regenerative Medicine Review Panel. 2018 – present.
4. Regenerative Medicine Focused Research Award (AFIRM III). Congressionally Directed Medical Research Program (CDMRP). January, 2020.
5. Peer Reviewed Medical Research Program DIS-MSH-1. Congressionally Directed Medical Research Program (CDMRP). July, 2020.
6. Peer Reviewed Medical Research Program FP-MSH. Congressionally Directed Medical Research Program (CDMRP). October, 2020.
7. Peer Reviewed Medical Research Program Discovery Neurological Disorders-3 (DIS-ND-3). Congressionally Directed Medical Research Program. Grant Panel Chair, July, 2022.
8. Plastic Surgery Research Foundation, Basic Science Section. Scientist. February, 2025.

Honors and Awards

1. Vision Science Research Program Scholarship. University of Toronto/Toronto Western Hospital. Award $47,000, December, 2001.
2. Graduate Research Scholarship (GRS). Neuroscience Entrance Scholarship. Faculty of Medicine, University of Calgary. Award $4,100, January, 2005.
3. Graduate Research Scholarship (GRS). Faculty of Medicine, University of Calgary. Award $4,100, September, 2005.
4. Graduate Research Scholarship (GRS). Faculty of Medicine, University of Calgary. Award $4,100, September 2007.
5. Hotchkiss Brain Institute Research Day. Poster awarded 2nd place overall. Award $100, September, 2007.
6. Spinal Cord and Nerve Regeneration Program Fellowship. Hotchkiss Brain Institute, University of Calgary. Award $7,000, September, 2007.
7. Society for Neuroscience/Eli Lily & Co. Chapters Graduate Student Travel Award. Award $750, November, 2007.
8. Faculty of Graduate Studies (FGS) Award. University of Calgary. Award $500, September, 2007.
9. Queen Elizabeth II Open Scholarship (Doctoral). Province of Alberta. Award $30,000, January 2008-January 2009.

10. MDNS Neuroscience Award. University of Calgary. Award $1,500, November, 2008.
11. Robertson Fund for Cerebral Palsy Research Fellowship. Hotchkiss Brain Institute. University of Calgary. Award $41,290, January 2008- January 10.
12. IAMGOLD/SickKids Postdoctoral Fellowship. Award $120,000, August, 2010-August, 2013.
13. Trainee Start-Up Fund (TSUF) Fellowship. The Hospital for Sick Children. Award $3,000, March, 2011.
14. RESTRACOMP Postdoctoral Fellowship. The Hospital for Sick Children. Award $67,000, August 2011-July 2013.
15. Centre for Brain and Behaviour Integrative Research Fellowship. The Hospital for Sick Children. Award $44,500/year. July, 2013-July 2014.
16. Canadian Institute for Health Research (CIHR) Postdoctoral Sleep Fellowship. Award $40,750, renewable for 2 years, May, 2015.
17. Kemp SWP, Urbanchek MG, Irwin ZT, Vu P, Woo SL, Sando IC, Moon JD, Chestek CA, Cederna PS. Macaques implanted with regenerative peripheral nerve interfaces (RPNIs) control prosthesis finger movements. **AAHS/ASPN/ASRM JOINT OUTSTANDING PAPER**. American Society for Peripheral Nerve Meeting. Kona, HI, January 13-15, 2017.
18. Hu Y, VanBelkum AL, Sando IC, Sohasky R, Moon JD, Kemp SWP, Cederna PS, Urbanchek MG. Muscle graft volume implanted in regenerative peripheral nerve interfaces influences electrical signal transduction. **AAHS/ASPN/ASRM JOINT OUTSTANDING PAPER.** American Society for Peripheral Nerve Meeting. Kona, HI, January 13-15, 2017.
19. Kubiak CA, Cederna PS, Kemp SWP, and Kung TA. Mitigation of Postamputation Pain with the Prophylactic Regenerative Peripheral Nerve Interface. Oral Presentation at the 9th Annual European Plastic Surgery Research Council, Bucharest, Romania, August 24-26, 2017. **BEST ORAL PRESENTATION.**
20. Kubiak CA, Kemp SWP, Cederna PS, and Kung TA. Neuroma Prevention with Prophylactic Regenerative Peripheral Nerve Interface Placement. American Society for Peripheral Nerve Meeting, Phoenix, AZ, January 12-14, 2018. **BEST RESIDENT PAPER.**
21. Kubiak CA, Vu P, Irwin ZT, Nu C, Henning T, Gates D, Gillespie RB, Kung TA, Cederna PS, Chestek C, Kemp SWP. Extracting Regenerative Peripheral Nerve Interface Signals From Human Subjects for Neuroprosthetic Control. **AAHS/ASPN/ASRM JOINT OUTSTANDING PAPER.** American Society for Peripheral Nerve Meeting, Phoenix, AZ, January 12-14, 2018.
22. Kubiak CA, Vu PP, Irwin ZT, Henning PT, Kung TA, Chestek CA, Cederna PS, Kemp SWP. Successful Control of Virtual and Robotic Hands using Neuroprosthetic Signals from Regenerative Peripheral Nerve Interfaces in a Human Subject. 63rd Plastic Surgery Research Council, Birmingham, AB, May 17-20, 2018. **BEST CLINICAL RESEARCH PAPER.**
23. Kung TA, Kubiak CA, Kemp SWP, Cederna PS. Regenerative Peripheral Nerve Interfaces for the Prevention of Postamputation Pain. Oral Presentation at the 10th Annual European Plastic Surgery Research Council. Hamburg, Germany, August 23-25, 2018. **2nd PLACE OVERALL PAPER.**
24. Kubiak CA, Cleary B, Sabbagh SW, Thieu V, Kung TA, Cederna PS and Kemp SWP. Enhanced Peripheral Nerve Regeneration Through Long (30 + 40 mm) Autografts with Unpurified Autologous Adipose Tissue. Oral Presentation at Michigan Academy of Plastic Surgeons 2018 Meeting. Mackinac Island, MI, 2018. **BEST CLINICAL PAPER.**
25. Kubiak CA, Vu P, Irwin ZT, Vaskov AK, Nu C, Gates D, Gillespie RB, Kung TA, Cederna PS, Chestek C, Kemp SWP. Decoding Regenerative Peripheral Nerve Interface Signals

Contributes to Dexterous Fine Motor Control. **AAHS/ASPN/ASRM JOINT OUTSTANDING PAPER.** American Society for Peripheral Nerve Meeting, Palm Desert, CA, Feb.1-3, 2019.

26. Rackham Graduate Travel Fellowship. Award for travel to the American Society for Peripheral Nerve Annual Meeting. Mentee: Nathan Lawera, $800, November, 2018.
27. Rackham Post-doctoral Travel Fellowship. Award for travel to the Plastic Surgery Research Council Annual Meeting. Mentee: Dr. Daniel Ursu, $500, April, 2019.
28. Lawera NG, Vu P, Irwin ZT, Vaskov AK, Nu C, Gates D, Gillespie RB, Kung TA, Cederna PS, Chestek CA, **Kemp SWP.** Real-time Dextrous Fine Motor Control of an Advanced Prosthetic Arm Using Regenerative Peripheral Nerve Signals. 64th Plastic Surgery Research Council, Baltimore, MD, May 2-5, 2019. **JOHN F. CRIKELAIR RESARCH AWARD.**
29. Kubiak CA, Ursu DC, Moon JD, Kung TA, Cederna PS, Kemp SWP. Neural Signal Transduction with the Muscle Cuff Regenerative Peripheral Nerve Interface. 64th Plastic Surgery Research Council, Baltimore, MD, May 2-5, 2019. **BEST HOTSHOT PRESENTATION.**
30. Kubiak CA. Viability and signaling of the muscle cuff regenerative peripheral nerve interface. 2018 PSF Bernard G. Sarnat Excellence in Grant Writing Award. Given to the top rated grant submitted to the Plastic Surgery Research Council. July, 2018. Mentors: **Kemp SWP**, Cederna PS.
31. Ursu DC. Behavioral validation of a combined musculo-skeletal neuroprosthetic interface. 2019 PSF Bernard G. Sarnat Excellence in Grant Writing Award. Given to the top rated grant submitted to the Plastic Surgery Research Council. September, 2019. Mentors: **Kemp SWP**, Cederna PS.
32. Ursu DC, Vu PP, Irwin ZT, Vaskov A, Nu CS, Gates DH, Gillespie RB, Kung TA, Cederna PS, **Kemp SWP**. Real-time dexterous fine motor control of an advanced prosthetic arm using regenerative peripheral nerve signals. European Congress of Neurorehabilitation, Budapest, Hungary, October 9-12, 2019. **BEST ORAL PRESENTATION.**
33. Svientek S, Lawera NG, Kubiak CA, Kung TA, Cederna PS, **Kemp SWP**. Regenerative peripheral nerve interface (RPNI) treatment in rats alleviate chronic neuropathic pain hypersenstivity in a sexually dimorphic manner. American Society for Peripheral Nerve Meeting, Ft. Lauderdale, FL, January 10-12, 2020. **BEST RESIDENT PAPER.**
34. Hotchkiss Brain Institute Alumni of the Year Award. University of Calgary Medical School. May, 2021.
35. Timek, JH. 2022 **Directors Award for Best Thesis in the Biology Program**. University of Michigan.
36. Lee JC. 2022 Lee JC**,** Svientek S, Wisely J, Dehdashtian A, Cederna PS, Kemp SWP. A Novel Biologic Nerve Interface For Exoskeleton Control In The Setting Of Peripheral Nerve Compromise. Poster presented at: Mose Gunn Annual Research Conference; May 2022; Ann Arbor, Michigan. **BEST POSTER**.
37. Timek JH, Guy EL, Dehdashtian A, Riegger A, K, Cederna PS, Kemp SWP. Regenerative Peripheral Nerve Interfaces (RPNI) attenuate neuropathic pain and molecular markers associated with symptomatic neuromas in both male and female rats. 67th Annual Plastic Surgery Research Council, Toronto, ON, Canada, June 8-12, 2022. **JOHN F. CRIKELAIR RESARCH AWARD.**
38. Vaskov AK, Lee C, Vu PP, Wallace DM, Davis AJ, Kung TA, Chestek CA, Cederna PS, **Kemp, SWP.** Long-term Reliable Prosthetic Hand And Wrist Control Using Regenerative

Peripheral Nerve Interfaces (RPNIs) And Implanted Electrodes. Plastic Surgery Research Council 68th Annual Meeting, Cleveland, OH, April 13-16, 2023. **TOP SCORING ABSTRACT. BEST CLINICAL PAPER.**

39. Lee JC, Kumar NG, **Kemp SWP**, Cederna PS, Kung TA. Regenerative Peripheral Nerve Interface Surgery And Its Four-year Pain And Medication Intake Outcomes For Treatment Or Prevention Of Postamputation Pain. Plastic Surgery Research Council 68th Annual Meeting, Cleveland, OH, April 13-16, 2023. **BEST SHORT PAPER.**
40. Adidharma W, Kodali R, Jillala RR, Huang SL, Santana-Rivera MV, Kozma KD, Cederna PS, Kemp SWP. The Composite Regenerative Peripheral Nerve Interface (C-RPNI) can facilitate multimodal sensory afferent signaling after mixed nerve transection. Plastic Surgery Research Council 69th Annual Meeting, Boston, MA, May 16-19, 2024. **CLIFFORD C. SNYDER AWARD FOR BEST RESIDENT PAPER.**
41. Vaskov AK, Wallace DM, Kung TA, Chestek CA, Cederna PS, Kemp SWP. Restoring lost function with Regenerative Peripheral Nerve Interfaces and implanted EMG electrodes. Plastic Surgery Research Council 69th Annual Meeting, Boston, MA, May 16-19, 2024**. BEST CLINICAL PAPER.**
42. Huang SL, Adidharma W, Kodali R, Maurer R, Kozma KD, Cederna PS. Kemp SWP. Attenuation of neuroma pain with prophylactic Composite Regenerative Peripheral Nerve Interface (C-RPNI) in a rodent neuroma model. Plastic Surgery Research Council 69th Annual Meeting, Boston, MA, May 16-19, 2024. **JOHN F. CRIKELAIR RESEARCH AWARD.**
43. **Kemp SWP.** The Composite Regenerative Peripheral Nerve Interface (C-RPNI) Facilitates Multimodal Sensory Afferent Signaling and Neuroma Attenuation. Sunderland Society Annual Meeting, Mackinac Island, MI, September 13-16, 2024. **BEST BASIC SCIENCE PAPER**
44. Svientek S, Wisely J, Hamill NP, Dehdashtian A, Cederna PS, **Kemp SWP**. Characterization of a Novel Neuromuscular Interface for Exoskeleton Control in the Setting of Muscular Injury. American Society for Peripheral Nerve Annual Meeting, Big Island, HI, January 17-19, 2025. **BEST RESIDENT PAPER.**

Student Mentored Awards

1. Timek JH. Directors Award in Biology for Best Thesis, 2022. Thesis Advisor.
2. Huang SL. Elizabeth Hume O'Donnell Award for Best Thesis in Neuroscience, 2023. Thesis Advisor.
3. Timek JH. Fulbright Scholarship, 2022-2023.
4. Patel A. Fulbright Scholarship, 2025-2026.

Memberships in Professional Societies

2007 – Present	Member, Society for Neuroscience
2012 – Present	Member, American Society for Peripheral Nerve
2018 – Present	Member, Plastic Surgery Research Council
2020 – Present	Member, American Association of Neuromuscular & Electrodiagnostic Medicine

Professional Society Committees

1. Program Committee, American Society for Peripheral Nerve. 2018-Present.
2. Membership Committee, American Society for Peripheral Nerve. 2019-Present.
3. Nominations Committee, American Society for Peripheral Nerve. 2020-2023.
4. Education Committee, American Society for Peripheral Nerve. 2023-Present.
5. Membership Committee, Plastic Surgery Research Council. 2020-Present.
6. Program Committee, Plastic Surgery Research Council. 2023-Present.

Editorial Positions, Boards, and Peer-Review Service

Associate Editor

2021- Present	Muscle & Nerve

Reviewer

2010 – Present	Current Stem Cell Research and Therapy
2010 – Present	Pharmaceutical Research
2010 – Present	Journal of Neurotrauma
2010 – Present	Stem Cells and Development
2010 – Present	Neurological Research
2012 – Present	Journal of Translational Medicine
2012 – Present	Neuroscience
2012 – Present	Acta Biomaterialia
2012 – Present	PLOS One
2013 – Present	Muscle & Nerve
2013 – Present	Journal of Tissue Engineering and Regenerative Medicine
2014 – Present	Annals of Biomedical Engineering
2015 – Present	Tissue Engineering Part A
2016 – Present	Journal of Orthopaedic Research
2016 – Present	Neurosurgery
2017 – Present	European Journal of Neuroscience
2018 – Present	Plastic and Reconstructive Surgery
2018 – Present	Plastic and Reconstructive Surgery Global Open
2018 – Present	Scientific Reports
2019 – Present	Journal of Neural Engineering
2020 – Present	Brain, Behavior, and Immunity
2020 – Present	Journal of Pain Research
2020 – Present	Proceedings of the National Academy of Sciences (PNAS)
2020 – Present	Nature Communications
2023 – Present	Purinergic Signaling

Teaching

Visiting Professors Mentored

2016 – 2017	Dr. Masaru Takeuchi, Nagoya University, Nagoya, Japan
2019 – 2020	Dr. Joon Pil Yoon, Kyungpook National University, Sangju, South Korea

Research Fellows Mentored

2008 – 2010 Dr. Jacob Alant, Resident, Co-Supervisor, Department of Neurosurgery, University of Calgary, Alberta, Canada

2017 – 2019 Dr. Carrie Kubiak, Resident, Supervisor, Department of Surgery, Section of Plastic Surgery, University of Michigan, Ann Arbor, MI

2017 – 2019 Dr. Dan Ursu, Post-doctoral fellow, Supervisor, Department of Surgery, Section of Plastic Surgery, University of Michigan, Ann Arbor, MI

2019 – Present Dr. Shelby Svientek, Resident, Supervisor, Department of Surgery, Section of Plastic Surgery, University of Michigan, Ann Arbor, MI

2019 – Present Dr. Amir Dehdashtian, Post-doctoral fellow, Supervisor, Department of Surgery, Section of Plastic Surgery, University of Michigan, Ann Arbor, MI

2020 – Present Dr. Gabriela Cinotto, Post-doctoral fellow, Supervisor Department of Surgery, Section of Plastic Surgery, University of Michigan, Ann Arbor, MI

Medical Students Mentored

2010 – 2011 Co-Supervisor for Mark Syznkaruk, The Hospital of Sick Children, Toronto, Ontario, Canada, 1st Place CREMS Medical Research Day

2010 Co-Supervisor for Peter Phua, The Hospital of Sick Children, Toronto, Ontario, Canada

2010 – 2012 Co-Supervisor for Edward Liu, The Hospital of Sick Children, Toronto, Ontario, Canada, 1st Place McMaster Medical Research Day

2016 – 2017 Supervisor for Dan Ursu, University of Michigan Medical School

2016 – Present Supervisor for Ali van Belkum, University of Michigan Medical School

2017 – Present Supervisor for Brian Cleary, University of Michigan Medical School

2017 – Present Supervisor for Jason Kessler, University of Michigan Medical School

2020 – Present Supervisor for Christopher Issa, Oakland University Medical School

2020 – Present Supervisor for Justin Wisely, University of Grenada Medical School

Graduate Students Mentored

2018 – 2019 Supervisor for Nathan Lawera, MSc, Biomedical Engineering, University of Michigan, Ann Arbor MI

2018 – 2019 Supervisor for Sanjana Ramen, MSc, Biomedical Engineering, University of Michigan, Ann Arbor MI

2019 – 2020 Supervisor for Zishan Zhang, MSc, Biomedical Engineering, University of Michigan, Ann Arbor MI

2019 – Present Supervisor for Fatimah Alkaabi, MSc, Biomedical Engineering, University of Michigan, Ann Arbor MI

Undergraduate Teaching and Research Fellows Mentored

1999 – 2000 Teaching Assistant, Thesis in Psychology, Wilfrid Laurier University, Waterloo, Ontario, Canada

2000 – 2001 Teaching Assistant, Neuroscience Laboratory, Wilfrid Laurier University, Waterloo, Ontario, Canada

2001 Guest Lecturer, Principles of Neuroscience, Wilfrid Laurier University, Waterloo, Ontario, Canada

2001	Guest Lecturer, Research Seminar in Behav. Neuroscience, Wilfrid Laurier University, Waterloo, Ontario, Canada
2001	Guest Lecturer, Department of Psychiatry, Grand Rounds, University of Toronto, Toronto, Ontario, Canada
2007	Guest Lecturer, Systems Neuroscience, University of Calgary, Alberta, Canada
2007 – 2008	Co-Supervisor for Sundeep Dhaliwal, University of Calgary, Alberta, Canada
2008	Guest Lecturer, Developmental Neuroscience, University of Calgary, Alberta, Canada
2008 – 2010	Co-Supervisor for Shahbaz Syed, University of Calgary, Alberta Canada
2010 – 2012	Co-Supervisor for Krisanne Stanoulis, The Hospital of Sick Children, Toronto, Ontario, Canada, 1st Place IMS Undergraduate Research Day
2010 – 2013	Guest Lecturer, Plastic & Reconstructive Surgery, Grand Rounds, The Hospital of Sick Children, Toronto, Ontario, Canada
2012 – 2013	Co-Supervisor for Cameron Chiang, The Hospital of Sick Children, Toronto, Ontario, Canada, 2nd Place IMS Undergraduate Research Day
2012 – 2013	Co-Supervisor for Tanya Celluci, The Hospital of Sick Children, Toronto, Ontario, Canada
2013	Co-Supervisor for Holliday Cartar, The Hospital of Sick Children, Toronto, Ontario, Canada
2014	Guest Lecturer, Center for Brain & Behavior, Research Day, The Hospital of Sick Children, Toronto, Ontario, Canada
2015	Co-Supervisor for Nathan Chan, Department of Physiology, University of Toronto
2016 – 2019	Supervisor for Nathan Lawera, Department of Biomedical Engineering, University of Michigan
2016 – 2019	Supervisor for Maninder Singh, Department of Biomedical Engineering, University of Michigan
2016 – 2019	Supervisor for Vincent Thieu, Department of Biomedical Engineering, University of Michigan
2016 – 2019	Supervisor for Vidhya Nadarajan, Department of Molecular and Cellular Biology, University of Michigan
2016 – 2018	Supervisor for Scott Sabbaugh, Department of Biomedical Engineering, University of Michigan
2017	Supervisor for Connor McGraw, Michigan State University
2017 – 2018	Supervisor for Zaid Khatib, Department of Biomedical Engineering, University of Michigan.
2017 – 2018	Supervisor for Davon Shackleford, Department of Arts and Science, University Michigan
2018 – Present	Supervisor for Allison Vittert, Department of Biomedical Engineering, University of Michigan
2018 – 2019	Supervisor for Rachel Kubiak, Department of Arts and Sciences, University of Michigan
2018 – 2020	Supervisor for Mary Jane Risch, Department of Arts and Sciences, University of Michigan
2020 – Present	Supervisor for Jagienka Timek, Department of Arts and Sciences, University of Michigan

2020 – Present Supervisor for Dara Kissel, Department of Arts and Sciences, University of Michigan
2020 – Present Supervisor for Brandon Block, Department of Arts and Sciences, University of Michigan

Classes Taught
2018 – Present SPoM Surgery Class – Neuroprosthetics Section
2018 – Present BME 599 Special Topics in Biomedical Engineering – Neural Prostheses Section

Visiting Professorships, Seminars, and Extramural Invited Presentations

Invited Seminars and Faculty Talks

1. **Kemp SWP**: Neuronal activity in female rat preoptic area associated with sexually motivated behavior. Research seminar in Behavioral Neuroscience, Wilfrid Laurier University, Waterloo, Ontario, 2000.
2. **Kemp SWP**, Tseng M, Shapiro CM: Who has no slow-wave sleep? A case controlled analysis. Department of Psychiatry: City Wide Sleep Rounds. University of Toronto and the University Health Network, Toronto, Ontario, 2001.
3. **Kemp SWP**: Experimental strategies to promote functional recovery following peripheral nerve injury. Plastic and Reconstructive Surgery Grand Rounds, The Hospital for Sick Children, April, 2011.
4. **Kemp SWP**: Pharmacologic rescue of motor and sensory function by the neuroprotective compound P7C3 following neonatal nerve injury. Center for Brain and Behavior Research Day, The Hospital for Sick Children, April, 2014.
5. **Kemp SWP**: Novel treatment strategies for peripheral nerve injury. Neuromuscular Lab Meeting, The University of Michigan, October, 2015.
6. **Kemp SWP**: From neonatal nerve injury to anesthesia: My postdoc experience. T32 Research Seminar. Plastic and Reconstructive Surgery, The University of Michigan, November, 2016.
7. **Kemp SWP**: Development of a Regenerative Peripheral Nerve Interface for Motor Control and Sensory Feedback of Neuroprosthetic Devices. The D. Dan & Betty Kahn Technion-Israel Institute of Technology/University of Michigan/Weizmann Institute of Science Partner Symposium. Invited Speaker. Haifa, Israel, September 6, 2017.
8. **Kemp SWP:** From bench to bedside: State of the art techniques in treating peripheral nerve injury. T32 Research Seminar. The University of Michigan, February, 2018.
9. **Kemp SWP.** Regenerative Peripheral Nerve Interfaces for the Treatment of Painful Neuromas. **2018 GRANTS RECIPIENT INVITED TALK.** American Society for Peripheral Nerve Meeting, Palm Desert, CA, Feb.1-3, 2019.
10. **Kemp SWP**, Lawera NG, Vu PP, Irwin ZT, Vaskov A, Nu CS, Gates DH, Gillespie RB, Kung TA, Cederna PS, Chestek CA. Real-time dexterous fine motor control of an advanced prosthetic arm using regenerative peripheral nerve interface (RPNI) signals. Society of Engineering Science, St. Louis, MO, October 13-15, 2019. **KEYNOTE LECTURE.**
11. **Kemp SWP:** Regenerative peripheral nerve interfaces to control advanced prosthetics. Peripheral nerve surgical laboratory seminar. St. Louis, MO, October 14, 2019.
12. **Kemp SWP.** Multichannel carbon fiber electrodes to enhance nerve regeneration.**2019 GRANTS RECIPIENT INVITED TALK.** American Society for Peripheral Nerve Meeting, Ft.Lauderdale, FL, January 10, 2020.

13. **Kemp, SWP**. Fat grafting to enhance peripheral nerve regeneration. **ASPS Invited Keynote Talk**. World Stem Cell Summit, Miami, FL, January 21-24, 2020.
14. **Kemp SWP**. RPNIs for neuroma management. Plastic Surgery The Meeting, Virtual Meeting, October 17, 2020.
15. **Kemp SWP**. Regenerative Peripheral Nerve Interfaces for Advanced Prosthetic Control and Prevention of Neuropathic Pain. Washington University Department of Surgery Ground Rounds. April, 2020.

Conference Presentations

1. Cupchik GC, **Kemp SWP**, Gignac A: Matching and modulation in aesthetic response. XVI Congress of the International Association of Empirical Aesthetics. New York City, New York, August 9-12, 2000
2. **Kemp SWP**, Parker LA: Effect of THC on conditioned and unconditioned sickness behaviours elicited by lithium in Suncus murinus (house musk shrew). Society for Neuroscience 30th Annual Meeting. New Orleans, Louisiana, November 4-9, 2000.
3. **Kemp SWP**, Wagg SK, Zochodne DW, Midha R: In vivo delivery of nerve growth factor (NGF) through a novel t-tube chamber: Effects on early peripheral nerve regeneration. Repairing the Injured Spinal Cord 1st Annual Meeting. Banff, Alberta, April 18-20, 2006
4. **Kemp, SWP**, Wagg SK, Zochodne DW, Midha R: A dose dependent facilitation and inhibition of early peripheral nerve regeneration by nerve growth factor (NGF) through a novel t-tube chamber: Effects on the establishment of an in vivo concentration gradient. American Society for Peripheral Nerve Meeting. Rio Grande, Puerto Rico, January 13-14, 2007.
5. **Kemp SWP**, Webb AA, Midha R: Collagen nerve guide conduits promote enhanced axonal regeneration, Schwann cell association, and neovascularization superior to silicone tubes in both short and long gap models of peripheral nerve regeneration. Society for Neuroscience 37th Annual Meeting. San Diego, California, November 3-7, 2007.
6. **Kemp SWP**, Webb AA, Midha R: The effect of in vivo delivery of nerve growth factor (NGF) through a novel t-tube chamber on behavioural recovery in a rat model of peripheral nerve injury. Annual American Society for Peripheral Nerve Meeting. Beverly Hills, California, January 11-13, 2008.
7. **Kemp SWP**, Midha R, Webb AA: Behavioural analysis of peripheral nerve regeneration through nerve growth factor (NGF) loaded t-tube chambers. Society for Neuroscience 38th Annual Meeting. Washington, D.C., November 15-19, 2008.
8. **Kemp SWP**, Zochodne DW, Midha R: Exogenous administration of nerve growth factor (NGF) establishes a biphasic dose-response on early peripheral nerve regeneration. American Society for Peripheral Nerve Meeting. Maui, Hawaii, January 9-11, 2009.
9. **Kemp SWP**, Webb AA, Midha R: Behavioural analysis of peripheral nerve regeneration through nerve growth factor (NGF) loaded t-tube chambers. Congress of the Canadian Neurological Sciences Federation. Halifax, Nova Scotia, June 9-12, 2009.
10. Alant J, **Kemp SWP**, Webb AA, Midha R: Functional and anatomical analysis of selective tibial nerve branch neurotization to the deep peroneal nerve in the rat. Congress of the Canadian Neurological Sciences Federation. Halifax, Nova Scotia, June 9-12, 2009.
11. **Kemp SWP**, Webb AA, Midha R: Sensorimotor analysis of peripheral nerve regeneration through t-tube chambers loaded with nerve growth factor (NGF). Peripheral Nervous Society Meeting. Wurzburg, Germany, July 4-8, 2009.

12. **Kemp SWP**, Alant J, Webb AA, Midha R: Behavioural and anatomical analysis of selective tibial nerve branch neurotization to the deep peroneal nerve in the rat. Peripheral Nervous Society Meeting. Wurzburg, Germany, July 4-8 2009.
13. Midha R, **Kemp SWP**, Alant J, Walsh SK, Webb AA: Repair of the deep peroneal nerve in the rat by selective nerve transfer of the lateral gastrocnemius branch of the tibial nerve. 13th International Symposium on Neural Regeneration. Pacific Grove, California, December 9-13, 2009.
14. **Kemp SWP**, Webb AA, Midha R: Kinetic, kinematic, and sensorimotor analysis of peripheral nerve regeneration. American Society for Peripheral Nerve Meeting. Boca Raton, Florida, January 7-10, 2010.
15. Alant J, **Kemp SWP**, Webb AA, Midha R: Neuroma in continuity: A new nerve injury model. AO Spine North America Fellows Forum. Banff, Alberta, April 8-11, 2010.
16. Alant J, **Kemp SWP**, Khu KJ, Kumar R, Webb AA, Midha R: Traumatic neuroma in continuity injury model in rodents. American Society for Peripheral Nerve Meeting. Cancun, Mexico, January 14-16, 2011.
17. Wood MD, Kim, H, Bibily A, **Kemp SWP**, Gordon T, Shoichet M, Borschel GH: Development of a microsphere drug delivery system to promote peripheral nerve injury. Plastic Surgery Research Council Meeting. Louisville, KY, April 27-30, 2011.
18. **Kemp SWP**, Phua PD, Gordon T, Borschel G: Behavioral and anatomical analysis of the transgenic Thy1-GFP rat following peripheral nerve injury Society for Neuroscience 41st Annual Meeting. Washington, D.C., November 12-16, 2011.
19. **Kemp SWP**, Pieper AA, Wood MD, Szynkaruk M, Gordon T, Borschel GH: The effect of the novel proneurogenic, neuroprotective compound P7C3 on regenerative properties following sciatic nerve crush in neonatal rats. American Society for Peripheral Nerve Meeting. Las Vegas, NV, January 13-15, 2012.
20. **Kemp SWP**, Wood MD, Phua PD, Stanoulis KN, Gordon T, Borschel GH: Anatomical, behavioural, and myological analysis of the transgenic Thy1-GFP rat following peripheral nerve injury. American Society for Peripheral Nerve Meeting. Las Vegas, NV, January 13-15, 2012.
21. Wood MD, Kim H, **Kemp SWP**, Syznkaruk M, Weber C, Shoichet MS, Gordon T, Borschel GH: The duration of GDNF release affects nerve regeneration following delayed nerve repair. American Society for Peripheral Nerve Meeting. Las Vegas, NV, January 13-15, 2012.
22. **Kemp SWP**, Pieper AA, Wood MD, Szynkaruk M, Gordon T, Borschel GH: The neuroprotective compound P7C3 and its analogue P7C3A20 enhances regenerative properties following sciatic nerve crush in neonatal rats. Society for Neuroscience 42st Annual Meeting. New Orleans, LA, October 13-17, 2012.
23. Wood MD, Gordon T, **Kemp SWP**, Liu E, Kim H, Lafontaine C, Shoichet MS, Borschel GH: Microspheres releasing GDNF within fibrin gels improve peripheral nerve regeneration after delayed nerve repair. Society for Neuroscience 42st Annual Meeting. New Orleans, LA, October 13-17, 2012.
24. Wood MD, Kim H, Szynkaruk M, Phua P, Lafontaine C, **Kemp SWP**, Gordon T, Shoichet M, Borschel GH: Fibrin Gels with Microspheres Containing GDNF Enhance Peripheral Nerve Regeneration After Delayed Nerve Repair. Biomedical Engineering Society Annual Meeting, Atlanta, GA. October 5-8, 2012
25. **Kemp SWP**, Pieper AA, Wood MD, Szynkaruk M, Stanoulis K, Gordon T, Borschel GH: The Neuroprotective compound P7C3 and its analogue P7C3A20 enhances functional recovery

following neonatal nerve injury in a dose dependent manner. American Society for Peripheral Nerve Meeting. Naples, FL, January 11-13, 2013.

26. Wood MD, Gordon T, **Kemp SWP**, Liu E, Kim H, Shoichet M, Borschel GH: Functional Recovery Following Delayed Nerve Repair is Affected by the Duration of GDNF Release. American Society of Peripheral Nerve Annual Meeting, Naples, FL. January 11-13, 2013
27. **Kemp SWP**, Pieper AA, Wood MD, Szynkaruk M, Liu E, Gordon T, Borschel GH: Neuroprotective Efficacy of Aminopropyl Carbazoles in a Neonatal Rat Model of Nerve Injury. Plastic Surgery Research Council Annual Meeting. Santa Monica, CA, May 2-4, 2013.
28. **Kemp SWP**, Wood MD, Liu EH, Chiang CD, Gordon T, Borschel GH: Neuronal Death and Persistence of Functional Deficits Following Neonatal Nerve Injury Beyond Postnatal Day 5 (P5) in the Rat. Society for Neuroscience 42st Annual Meeting. San Diego, CA, November 9-13, 2013.
29. **Kemp SWP**, Chiang CD, Wood MD, Liu EH, Willand MP, Gordon T, Borschel GH: Neuronal Death and Persistence of Functional Deficits Beyond Postnatal Day 5 (P5) Following Neonatal Nerve Injury in the Rat. American Society for Peripheral Nerve Meeting. Kauai, HI, January 10-12, 2014.
30. Synder-Warwick A, Gordon T, Liu EH, Cellucci T, Chiang CD, Lafontaine C, **Kemp SWP**, Borschel GH: Axons preferentially regenerate across the most proximal nerve bridge in a model of side-to-side bridging for protection of denervated nerves. American Society for Peripheral Nerve Meeting. Kauai, HI, January 10-12, 2014.
31. Willand MP, Zhang JF, Chiang CD, **Kemp SWP**, Gordon T, Borschel GH: Early reinnervation is improved by daily electrical muscle stimulation following nerve injury and immediate repair. American Society for Peripheral Nerve Meeting. Kauai, HI, January 10-12, 2014.
32. **Kemp SWP**, Szynkaruk M, Stanoulis KN, Wood MD, Liu EH, Willand MP, Morlock L, Naidoo J, Williams NS, Ready JM, Mangano TJ, Beggs S, Salter MW, Gordon T, Pieper AA, Borschel GH: Pharmacologic rescue of motor and sensory function by the neuroprotective compound P7C3 following neonatal nerve injury. American College of Surgeons Clinical Congress. San Francisco, CA, October 26-30 2014.
33. Willand MP, Chiang CD, Zhang JJ, **Kemp SWP**, Gordon T, Borschel GH: Neuromuscular electrical stimulation following nerve transection and immediate repair enhances reinnervation and functional recovery. Society for Neuroscience 43rd Annual Meeting. Washington, DC, November 15-19, 2014.
34. **Kemp SWP**, Chan NK, Milenkovic M, Ramsey AJ, Sibille E, Orser BA: A deficiency of extrasynaptic α5 GABAA receptors contribute to impaired executive function and a depressive phenotype in mice. 36th Annual Shields Research Day, Toronto, ON, May 7 2015.
35. **Kemp SWP**, Ramsey AJ, Orser BA: $GABA_A$ receptors contribute to depressive behaviors in mice. Canadian Association of Anesthesiologists Annual Meeting, Ottawa, ON, June 19-22, 2015.
36. **Kemp SWP**, Chan NK, Milenkovic M, Ramsey AJ, Sibille E, Orser BA: Impaired executive function and a depressive-like phenotype in *gabra5*$^{-/-}$ mice. Society for Neuroscience 44th Annual Meeting. Chicago, IL, October 17-21, 2015.
37. Lawera NG, Gerlormino GM, Moon JD, Zhu W, Zhao L, **Kemp SWP**, Cederna PS, Urbanchek MG: Using interrupted chronic type direct muscle stimulation to improve neosphincter tone in the rat. UROP Summer Research Symposium. Ann Arbor, MI, Aug.2, 2016.

38. VanBelkum AL, Lawera NG, Khatib ZN, Cederna PS, **Kemp SWP**. Determination of Reinnervation by motor, sensory, and mixed nerves in regenerative peripheral nerve interfaces (RPNIs). Student Biomedical Research Program Fall Research Forum. November 7, 2016, Ann Arbor, MI. USA. Poster Presentation.
39. **Kemp SWP**, Urbanchek MG, Irwin ZT, Vu P, Woo SL, Sando IC, Moon JD, Chestek CA, Cederna PS. Macaques implanted with regenerative peripheral nerve interfaces (RPNIs) control prosthesis finger movements. **AAHS/ASPN/ASRM JOINT OUTSTANDING PAPER**. American Society for Peripheral Nerve Meeting. Kona, HI, January 13-15, 2017.
40. Hu Y, VanBelkum AL, Sando IC, Sohasky R, Moon JD, Kemp SWP, Cederna PS, Urbanchek MG. Muscle graft volume implanted in regenerative peripheral nerve interfaces influences electrical signal transduction. **AAHS/ASPN/ASRM JOINT OUTSTANDING PAPER**. American Society for Peripheral Nerve Meeting. Kona, HI, January 13-15, 2017.
41. VanBelkum AL, Lawera NG, Thieu V, Khatib Z, Urbanchek MG, Cederna PS, **Kemp SWP**. Determination of reinnervation by motor, sensory, and mixed nerves in regenerative peripheral nerve interfaces (RPNIs). American Society for Reconstructive Microsurgery Meeting. Kona, HI, January 14-17, 2017.
42. Kubiak CA, **Kemp SWP**, Cederna PS, Kung TA. Prophylactic regenerative peripheral nerve interfaces for the mitigation of neuroma pain and phantom limb pain. Plastic Surgery Research Council, May 4-7, 2017.
43. Nedic A, Ursu DC, Sando IC, **Kemp SWP**, Cederna PS, Urbanchek MG. *In situ* characterization of dermal sensory interfaces. The Association of American Physicians/American Society for Clinical Investigation/American Physician-Scientist Association Joint Meeting. Chicago, IL, April 21-23, 2017.
44. VanBelkum AL, Lawera NG, Thieu V, Khatib ZN, Urbanchek MG, Cederna PS, **Kemp SWP**. Determination of reinnervatin by motor, sensory, and mixed nerves in regenerative peripheral nerve interfaces (RPNIs). Moses Gunn Research Conference. Ann Arbor, MI, May 17, 2017.
45. Hu Y, VanBelkum AL, Sando IC, Sohasky R, Moon JD, **Kemp SWP**, Cederna PS, Urbancheck MG. Muscle graft volume implanted in regenerative peripheral nerve interfaces influences electrical signal transduction. Moses Gunn Research Conference. Ann Arbor, MI, May 17, 2017.
46. Nedic A, Ursu DC, Sando IC, **Kemp SWP**, Cederna PS, Urbanchek MG. Dermal sensory interfaces: For perceiving sensations from artificial limbs. Moses Gunn Research Conference. Ann Arbor, MI, May 17, 2017.
47. Kubiak CA, **Kemp SWP**, Cederna PS, Kung TA. Prophylactic peripheral nerve regenerative interfaces for the mititgation of neuroma pain and phantom limb pain. Reed O. Dingman Research Symposium. Ann Arbor MI, June 2, 2017.
48. Nedic A, Ursu DC, Sando IC, Moon JD, **Kemp SWP**, Cederna PS, Urbanchek MG. Dermal sensory interfaces: For perceiving sensations from artificial limbs. Reed O. Dingman Research Symposium. Ann Arbor MI, June 2, 2017.
49. Kubiak CA, Cederna PS, **Kemp SWP**, and Kung TA. Mitigation of Postamputation Pain with the Prophylactic Regenerative Peripheral Nerve Interface. Oral Presentation at the 9th Annual European Plastic Surgery Research Council, Bucharest, Romania, August 24-26, 2017. **BEST ORAL PRESENTATION.**
50. **Kemp SWP**. Development of a regenerative peripheral nerve interface for motor control and sensory feedback of neuroprosthetic devices. The D. Dan & Betty Kahn Technion-Israel

Institute of Technology/University of Michigan/Weizmann Institute of Science Partner Symposium. Haifa, Israel, September 6, 2017.

51. VanBelkum AL, Lawera NG, Thieu V, Cederna PS, **Kemp SWP**. Characterization of motor, sensory, and mixed nerve regenerative peripheral nerve interfaces (RPNIs). Society for Neuroscience 45th Annual Meeting. Washington, DC, November 11-15, 2017.
52. Vu PP, Irwin ZT, Nu CS, Henning PT, Gates D, Gillespie RB, **Kemp SWP**, Kung TA, Cederna PS, Chestek CA. Extracting regenerative peripheral nerve interface signals from human subjects for neuroprosthetic control. Society for Neuroscience 45th Annual Meeting. Washington, DC, November 11-15, 2017.
53. Kubiak CA, **Kemp SWP**, Cederna PS, and Kung TA. Neuroma Prevention with Prophylactic Regenerative Peripheral Nerve Interface Placement. American Society for Peripheral Nerve Meeting, Phoenix, AZ, January 12-14, 2018. **BEST RESIDENT PAPER.**
54. Kubiak CA, Vu P, Irwin ZT, Nu C, Henning T, Gates D, Gillespie RB, Kung TA, Cederna PS, Chestek C, **Kemp SWP**. Extracting Regenerative Peripheral Nerve Interface Signals From Human Subjects for Neuroprosthetic Control. **AAHS/ASPN/ASRM JOINT OUTSTANDING PAPER**. American Society for Peripheral Nerve Meeting, Phoenix, AZ, January 12-14, 2018.
55. Nedic A, Ursu DC, **Kemp SWP**, Cederna PS, Urbanchek MG. Dermal sensory interfaces to restore graded sensory feedback from prostheses. American Society for Peripheral Nerve Meeting, Phoenix, AZ, January 12-14, 2018.
56. Nedic A, vanBelkum AL, Lawera NG, Thieu V, Khatib Z, Urbanchek MG, Cederna PS, **Kemp SWP**. Functional characterization of mixed, motor, and sensory nerve regenerative peripheral nerve interfaces (RPNIs). American Society for Peripheral Nerve Meeting, Phoenix, AZ, January 12-14, 2018.
57. **Kemp SWP**, Cederna PS. Regenerative peripheral nerve interfaces for the treatment of painful neuromas. 24th Sunderland Society Meeting, Stanford, CA, March 3-6, 2018.
58. Cederna PS, **Kemp SWP**. Dermal sensory interfaces for providing feedback to amputees. 24th Sunderland Society Meeting, Stanford, CA, March 3-6, 2018.
59. Cederna PS, **Kemp SWP**. Successful control of virtual and robotic hands using neuroprosthetic signals from regenerative peripheral nerve interfaces. 24th Sunderland Society Meeting, Stanford, CA, March 3-6, 2018.
60. Kubiak CA, **Kemp SWP**, Cederna PS, Kung TA. Mitigation of postamputation pain with the prophylactic regenerative peripheral nerve interface. 63rd Plastic Surgery Research Council, Birmingham, AB, May 17-20, 2018.
61. Sabbagh SW, van Belkum AL, Lawera NG, Thieu V, Cederna PS, **Kemp SWP**. Characterization of motor, sensory, and mixed nerve regenerative peripheral nerve interfaces (RPNIs) for prosthetic control. 63rd Plastic Surgery Research Council, Birmingham, AB, May 17-20, 2018.
62. Kubiak CA, Vu PP, Irwin ZT, Henning PT, Kung TA, Chestek CA, Cederna PS, **Kemp SWP.** Successful Control of Virtual and Robotic Hands using Neuroprosthetic Signals from Regenerative Peripheral Nerve Interfaces in a Human Subject. 63rd Plastic Surgery Research Council, Birmingham, AB, May 17-20, 2018. **BEST CLINICAL RESEARCH PAPER**.
63. Cleary BP, Kubiak CA, Sabbagh SW, Thieu V, Cederna PS, **Kemp SWP**. Autologous Unpurified Adipose Tissue Enhances Peripheral Nerve Regeneration Through Long (30 + 40 mm) Autografts. 63rd Plastic Surgery Research Council, Birmingham, AB, May17-20, 2018.

64. Lawera NG, Kubiak CA, Sabbagh SW, Thieu V, Cederna PS, **Kemp SWP**. Autologous Unpurified Adipose Tissue Enhances Peripheral Nerve Regeneration through 20 mm Autografts. 63rd Plastic Surgery Research Council, Birmingham, AB, May 17-20, 2018.
65. Kessler JL, Sabbagh SW, Kubiak CA, Moon J, Thieu V, kesslkes BP, Cederna PS, **Kemp SWP**. Characterization of Chronic Pain and Hypersensitivity in Mixed, Motor, and Sensory Nerve Terminal Neuromas in Rats. 63rd Plastic Surgery Research Council, Birmingham, AB, May 17-20, 2018.
66. Lawera NG, Kubiak CA, Sabbagh SW, Thieu V, Cederna PS, **Kemp SWP**. Using Autologous Unpurified Adipose Tissue to Enhance Peripheral Nerve Regeneration. 30th Annual Moses Gunn Research Conference. Ann Arbor, MI, May 3, 2018.
67. Kubiak CA, **Kemp SWP**, Cederna PS, Kung TA. Prophylactic regenerative peripheral nerve interface placement for the prevention of postamputation pain. 30th Annual Moses Gunn Research Conference. Ann Arbor, MI, May 3, 2018.
68. **Kemp SWP**, VanBelkum AL, Sando IC, Gerling GR, Ursu DC, Hu Y, Mays EA, Moon JD, Urbanchek MG, Cederna PS. Providing sensory feedback to amputees with dermal sensory nerve interfaces. 2nd International Symposium on Innovations in Amputation Surgery and Prosthetic Technologies, Vienna, Austria, May 10-13, 2018.
69. Gok E, Guy E, Kubiak CA, **Kemp SWP**, Ozer K. Functional outcome after dynamic hypothermic ex-situ perfusion on rat hind limb allografts. 73rd annual meeting of the American Society for Surgery of the Hand. Boston, MA, Sept. 13-15, 2018.
70. **Kemp SWP**, Kubiak CA, Cederna PS, Kung TA. Regenerative peripheral nerve interfaces for both treatment and prophylactic prevention of postamputation neuroma pain. 2018 Military Health System Research Symposium (MHSRS), Kissimmee, FL, Aug.20-23, 2018.
71. Gok E, Rojas Pena A, Guy E, Kubiak CA, **Kemp SWP**, Ozer K. Long-term Outcomes of Hypothermic Ex-Situ Limb Perfusion. 2018 Military Health System Research Symposium (MHSRS), Kissimmee, FL, Aug.20-23, 2018.
72. Kubiak CA, Cleary B, Sabbagh SW, Thieu V, Kung TA, Cederna PS and **Kemp SWP**. Enhanced Peripheral Nerve Regeneration with Unpurified Autologous Adipose Tissue. Oral Presentation at the 10th Annual European Plastic Surgery Research Council. Hamburg, Germany, August 23-25, 2018.
73. Kung TA, Kubiak CA, **Kemp SWP**, Cederna PS. Regenerative Peripheral Nerve Interfaces for the Prevention of Postamputation Pain. Oral Presentation at the 10th Annual European Plastic Surgery Research Council. Hamburg, Germany, August 23-25, 2018. **2nd PLACE OVERALL PAPER.**
74. Kubiak CA, Cleary B, Sabbagh SW, Thieu V, Kung TA, Cederna PS and **Kemp SWP**. Enhanced Peripheral Nerve Regeneration Through Long (30 + 40 mm) Autografts with Unpurified Autologous Adipose Tissue. Oral Presentation at Michigan Academy of Plastic Surgeons 2018 Meeting. Mackinac Island, MI, 2018. **BEST CLINICAL PAPER.**
75. Hainwright PJ, Rath J, von Guionneau N, Harris TGW, **Kemp SWP**, Lee A, Hoke A, Cederna PS, Tuffaha SH. Stimulated Grip Strength Measurement: Validation of a Novel Method for Functional Assessment. American Society for Peripheral Nerve Meeting, Palm Desert, CA, Feb.1-3, 2019.
76. Lawera NG, Kubiak CA, Sabbagh, SW, Thieu V, Singh M, Nadarajan V, Vittert AB, Wang WY, Moon, JD, French ZP, Baker BM, Cederna PS, **Kemp SWP**. 20 mm Autografts Supplmented with Autologous Adipose Tissue Enhances Functional Recovery Following

Nerve Injury. American Society for Peripheral Nerve Meeting, Palm Desert, CA, Feb.1-3, 2019.

77. Kubiak CA, Ursu DC, Moon JD, Patil PG, Kung TA, Cederna PS, **Kemp SWP**. Bidirectional Signal Transduction with the Composite Regenerative Peripheral Nerve Interface. American Society for Peripheral Nerve Meeting, Palm Desert, CA, Feb.1-3, 2019.
78. Svientek S, sab JL, Kubiak CA, Sabbagh SW, Thieu V, Cleary BP, Kung TA, Cederna PS, **Kemp SWP**. Neuropathic Pain Hypersensitivty From Terminal Neuromas is Sexually Dimorphic in Rats. American Society for Peripheral Nerve Meeting, Palm Desert, CA, Feb.1-3, 2019.
79. Kubiak CA, Vu P, Irwin ZT, Vaskov AK, Nu C, Gates D, Gillespie RB, Kung TA, Cederna PS, Chestek C, **Kemp SWP**. Decoding Regenerative Peripheral Nerve Interface Signals Contributes to Dexterous Fine Motor Control. **AAHS/ASPN/ASRM JOINT OUTSTANDING PAPER**. American Society for Peripheral Nerve Meeting, Palm Desert, CA, Feb.1-3, 2019.
80. Lawera NG, Cleary BP, Kubiak CA, Sabbagh SW, Thieu V, French ZP, Cederna PS, **Kemp SWP**. Peripheral Nerve Regeneration Through Long (30+40 mm) Autografts is Enhanced by Supplementation of Autologous Unpurified Adipose Tissue. American Society for Peripheral Nerve Meeting, Palm Desert, CA, Feb.1-3, 2019.
81. Kubiak CA, Ursu DC, Moon JD, Kung TA, Cederna PS, **Kemp SWP**. Viability and Signaling of the Muscle Cuff Regenerative Peripheral Nerve Interface. American Society for Peripheral Nerve Meeting, Palm Desert, CA, Feb.1-3, 2019.
82. **Kemp SWP**. Regenerative Peripheral Nerve Interfaces for the Treatment of Painful Neuromas. 2018 **GRANTS RECIPIENT INVITED TALK**. American Society for Peripheral Nerve Meeting, Palm Desert, CA, Feb.1-3, 2019.
83. Ozer K, Gok, E, Kubiak C, Guy E, **Kemp SWP**. The Effects of Static Cold Storage, Pulsatile Hypothermic Perfusion, and Pulsatile Near-Normothermic Perfusion on the Metabolism and Function of Rat Hindlimb Allografts. 14th IFFSH & 11th IFSHT Triennial Congress. Berlin, Germany, July 17-21, 2019.
84. Gates DH, Vu PP, Irwin ZT, Vaskov AK, Henning PT, Leuders D, Laidlaw AT, Nu CS, Gillespie RB, **Kemp SWP**, Chestek CA, Cederna PS. Regenerative peripheral nerve interfaces enable dexterous hand control. 45th Academy Annual Meeting and Scientific Symposium. Orlando, Fl, March 6-9, 2019.
85. Hwang C, Kubiak C, Sorkin M, Pagani CA, Vasquez K, Rehse T, Garada A, Khatib ZN, Kotha P, Lisiecki J, Stepien D, Visser ND, James A, Niknafs Y, Cederna PS, **Kemp SWP**, Levi, B. Neural input modulates aberrant cell fate after extremity trauma. 14th Annual Academic Surgical Congress. Houston, TX, February 5-7, 2019.
86. Lawera, NG, Gok E, Kubiak CA, Guy E, Rojas-Pena A, Bartlett R, Cederna PS, **Kemp SWP**, Ozer K. Functional Outcome After Dynamic Hypothermic Ex-situ Perfusion on Rat Hindlimb Allografts. 64th Plastic Surgery Research Council, Baltimore, MD, May 2-5, 2019.
87. Lawera NG, Vu P, Irwin ZT, Vaskov AK, Nu C, Gates D, Gillespie RB, Kung TA, Cederna PS, Chestek CA, **Kemp SWP**. Real-time Dextrous Fine Motor Control of an Advanced Prosthetic Arm Using Regenerative Peripheral Nerve Signals. 64th Plastic Surgery Research Council, Baltimore, MD, May 2-5, 2019. **JOHN F. CRIKELAIR RESARCH AWARD.**
88. Kubiak CA, Ursu DC, Moon JD, Patil PG, Kung TA, Cederna PS, **Kemp SWP**. Viability and Signal Transduction with the Composite Regenerative Peripheral Nerve Interface (C-RPNI). 64th Plastic Surgery Research Council, Baltimore, MD, May 2-5, 2019.

89. Kubiak CA, Ursu DC, Moon JD, Kung TA, Cederna PS, **Kemp SWP**. Neural Signal Transduction with the Muscle Cuff Regenerative Peripheral Nerve Interface. 64th Plastic Surgery Research Council, Baltimore, MD, May 2-5, 2019. **BEST HOTSHOT PRESENTATION.**
90. Hwang C, Stepien DM, Kubiak CA, Pagani CA, Rehse T, Visser ND, Garada A, Khatib ZN, Kotha P, Vasquez K, Lisiecki J, Cederna PS, **Kemp SWP**, James A, Levi B. Identification of the Role of Sensory Nerve TrkA Signaling on Progenitor Cell Fate after Extremity Trauma. 64th Plastic Surgery Research Council, Baltimore, MD, May 2-5, 2019.
91. Ursu DC, Kung TA, Urbanchek MG, Gillespie RB, Cederna PS, **Kemp SWP**. Regenerative Peripheral Nerve Interface Signal Validation via Conscious Response to Tactile Stimuli. 64th Plastic Surgery Research Council, Baltimore, MD, May 2-5, 2019.
92. Svientek S, Kessler JL, Kubiak CA, Sabbagh SW, Thieu V, Clearly BP, Kung TA, Cederna PS, **Kemp SWP**. Mechanisms of neuropathic pain hypersensitivity following terminal neuromas in rats is sexually dimorphic. 64th Plastic Surgery Research Council, Baltimore, MD, May 2-5, 2019.
93. Kung TA, Kubiak CA, **Kemp SWP**, Cederna PS. Regenerative Peripheral Nerve Interfaces for the Prevention of Postamputation Pain. 64th Plastic Surgery Research Council, Baltimore, MD, May 2-5, 2019.
94. Hwang C, Stepien DM, Kubiak CA, Meyers CA, Lee S, Sorkn M, Pagani CA, Rehse T, Visser ND, Garada MA, Khatib ZN, Kotha P, Vasquez K, Lisiecki J, Cederna PS, **Kemp SWP**, Clemens TL, James AW, Levi B. Inhibition of sensory nerve TrkA signaling alters progenitor cell fate after extremity trauma. 41st Annual Tucson Hospital Medical Education Program. Telluride, CO, February 21-23, 2019.
95. Hwang C, Stepien DM, Kubiak CA, Meyers CA, Lee S, Sorkn M, Pagani CA, Rehse T, Visser ND, Garada MA, Khatib ZN, Kotha P, Vasquez K, Lisiecki J, Cederna PS, **Kemp SWP**, Clemens TL, James AW, Levi B. Inhibition of sensory nerve TrkA signaling alters progenitor cell fate after extremity trauma. Moses Gunn Research Conference. Ann Arbor, MI, May 1, 2019.
96. Yan D, Jiman A, Patel P, Bottorff E, Welle E, Ouyang Z, Ursu D, Parrish H, **Kemp SWP**, Chestek C, Bruns T, Yoon E, Seymour J. A high-density tool for the autonomic nervous system: MIcroneedle Nerve Array (MINA) demonstrated in the rat cervical vagus nerve, International Society for Autonomic Neuroscience Congress, Los Angeles, CA, July 25-27, 2019.
97. Seymour J, Yan D, Jiman A, Patel P, Ratze D, Bottorff E, Welle E, Ouyang Z, Ursu D, Parrish H, **Kemp SWP**, Chestek C, Bruns T, Yoon E. A high-density tool for the ANS: Microneedle Nerve Array (MINA) demonstrated in the rat cervical vagus nerve. International Society for Autonomic Neuroscience Congress, Los Angeles, CA, July 25-27, 2019.
98. Ursu DC, Vu PP, Irwin ZT, Vaskov A, Nu CS, Gates DH, Gillespie RB, Kung TA, Chestek CA, Cederna PS, **Kemp SWP**. Real-time dexterous fine motor control of an advanced prosthetic arm using regenerative peripheral nerve signals. European Congress of Neurorehabilitation, Budapest, Hungary, October 9-12, 2019. **BEST ORAL PRESENTATION.**
99. Wang SY, Moon JD, Kubiak CA, Ursu DC, **Kemp SWP**. Histomorphological analysis of composite regenerative peripheral nerve interfaces reveals healthy neurons at 3 months, with sustained maturation at 6 months post-op. 31st Annual EVMS Research Day, Norfolk, VA, October 11, 2019.

100. **Kemp SWP**, Lawera NG, Vu PP, Irwin ZT, Vaskov A, Nu CS, Gates DH, Gillespie RB, Kung TA, Cederna PS, Chestek CA. Real-time dexterous fine motor control of an advanced prosthetic arm using regenerative peripheral nerve interface (RPNI) signals. Society of Engineering Science, St. Louis, MO, October 13-15, 2019. **KEYNOTE LECTURE.**
101. **Kemp SWP**. Multichannel carbon fiber electrodes to enhance nerve regeneration. **2019 GRANTS RECIPIENT INVITED TALK.** American Society for Peripheral Nerve Meeting, Ft.Lauderdale, FL, January 10, 2020.
102. Kubiak CA, Ursu DC, Singh M, Bachman M, Cederna PS, **Kemp SWP.** Differential gene expression changes between the motor and sensory components of composite regenerative peripheral nerve interfaces (C-rpnis). American Society for Peripheral Nerve Meeting, Ft. Lauderdale, FL, January 10-12, 2020.
103. Svientek S, Lawera NG, Kubiak CA, Kung TA, Cederna PS, **Kemp SWP.** Regenerative peripheral nerve interface (RPNI) treatment in rats alleviate chronic neuropathic pain hypersenstivity in a sexually dimorphic manner. American Society for Peripheral Nerve Meeting, Ft. Lauderdale, FL, January 10-12, 2020. **BEST RESIDENT PAPER.**
104. Ursu DC, Kubiak CA, Moon JD, Patil PC, Kung TA, Cederna PS, **Kemp SWP.** Electrophysiological and histological assessment of composite regenerative peripheral nerve interfaces. American Society for Peripheral Nerve Meeting, Ft. Lauderdale, FL, January 10-12, 2020.
105. Ursu DC, Kubiak CA, Gok E, Guy E, Ponder M, Hoenerhoff MJ, Rojas-Pena A, Bartlett RH, Cederna PS, Ozer K, **Kemp SWP.** Hypothermic ex-situ perfusion enhances nerve signaling viability and skeletal muscle force generation following hindlimb transplantation. American Society for Peripheral Nerve Meeting, Ft. Lauderdale, FL, January 10-12, 2020.
106. Ursu DC, Jiman A, Patel P, Bottorf E, Welle E, Yan D, Ouyang A, Parrish H., Rutze D, Yoon E, Bruns TM, Chestek CA, Cederna PS, Seymour J, **Kemp, SWP.** Development of novel microelectrode arrays for intraneural recording of autonomic neural activity. American Society for Peripheral Nerve Meeting, Ft. Lauderdale, FL, January 10-12, 2020.
107. Vu PP, Lu C, Vaskov A, Gates D, Gillespie RB, Kung TA, Cederna PS, Chestek CA, **Kemp SWP.** Restoration of proprioceptive and cutaneous sensation using regenerative peripheral nerve interfaces (RPNIs). American Society for Peripheral Nerve Meeting, Ft. Lauderdale, FL, January 10-12, 2020.
108. Lee S, Hwang C, Pagani CA, Stepien DM, Sorkin M, Qin Q, Kubiak CA, Meyers CA, Visser ND, Vasquez K, Miller S, Marini S, Negri S, Garada M, Rasheed HA, Li Z, Huber A, Mnichiello L, Cederna PS, **Kemp SWP**, Clemens TL, Levi B, James AW. Hyper-innervation driven by NGF-TrkA signaling is required for heterotopic bone. Orthopaedic Research Society Annual Meeting, Phoenix, AZ, February 8-11, 2020.
109. **Kemp SWP**. Fat grafting to enhance peripheral nerve regeneration. ASPS Invited Keynote Talk. World Stem Cell Summit, Miami, FL, January 21-24, 2020.
110. Dehdashtian A, Svientek SR, Risch MJ, Ursu DC, Vittert AB, Cederna PS, **Kemp, SWP**. Prophylactic regenerative peripheral nerve interfaces (RPNIs) reveals sexually dimorphic attenuation of neuropathic pain in rat's neuroma model. 32nd Annual Moses Gunn Research Conference, Ann Arbor, MI, March 11, 2020.
111. Bratley JV, Ursu DC, Svientek SR, Kubiak CA, Moon JD, Patil PG, Kung TA, Cederna PS, **Kemp SWP**. Viability, reinnervation mapping, and bi-directional signal transduction of Composite Regenerative Peripheral Nerve Interfaces. 32nd Annual Moses Gunn Research Conference, Ann Arbor, MI, March 11, 2020.

112. Svientek SR, Dehdashtian A, Jiman AA, Patel PR, Welle E, Yan D, Ratze DC, Botorff EC, Parrish HJ, Ouyang Z, Yoon E, Cederna PS, Bruns T, Chestek CA, Seymour JP, **Kemp SWP**. Functional and histologic assessment of novel microelectrode arrays for intraneural recording of autonomic neural activity. 65th Plastic Surgery Research Council, Toronto, ON, May 28-31, 2020.
113. Svientek SR, Lawera NG, Kubiak CA, Bratley JV, Kung TA, Cederna PS, **Kemp SWP**. Attenuation of neuroma induced pain hypersensitivity by Regenerative Peripheral Nerve Interfaces (RPNIs) is sexually dimorphic in rats. 65th Plastic Surgery Research Council, Toronto, ON, May 28-31, 2020.
114. Dehdashtian A, Ursu DC, Patel PG, Welle E, Chestek CA, Cederna PS, **Kemp SWP**. Multichannel carbon fiber electrode arrays for selective stimulation and recording of sensory-motor signals in peripheral nerve interfaces. 65th Plastic Surgery Research Council, Toronto, ON, May 28-31, 2020.
115. Vu PP, Lu G, Vaskov AG, Gates DH, Gillespie RB, Kung TA, Cederna PS, **Kemp SWP**. Restoration of proprioceptive and cutaneous sensation using Regenerative Peripheral Nerve Interfaces (RPNIs) in humans with upper limb amputations. 65th Plastic Surgery Research Council, Toronto, ON, May 28-31, 2020.
116. Kubiak CA, Ursu DC, Singh M, Cederna PS, **Kemp SWP**. Identification of regeneration-associated gene expression changes in Composite Regenerative Peripheral Nerve Interfaces (C-RPNIs) reveals differential motor and sensory phenotypes. 65th Plastic Surgery Research Council, Toronto, ON, May 28-31, 2020.
117. Svientek SR, Ursu DC, Bratley JV, Cederna PS, **Kemp SWP**. Physiologic characterization of the Muscle Cuff Regenerative Peripheral Nerve Interface (MC-RPNI) during volitional behavior. 65th Plastic Surgery Research Council, Toronto, ON, May 28-31, 2020.
118. Dehdashtian A, Svientek SR, Risch MJ, Ursu DC, Vittert AB, Cederna PS, **Kemp SWP**. Prophylactic Regenerative Peripheral Nerve Interfaces (RPNIs) reveals sexually dimorphic attenuation of neuropathic pain in rat's neuroma model. 65th Plastic Surgery Research Council, Toronto, ON, May 28-31, 2020.
119. Bratley JV, Ursu DC, Svientek SR, Kubiak CA, Moon JD, Patil PG, Kung TA, Cederna PS, **Kemp SWP**. Electrophysiological and histological evaluation of Composite Regenerative Peripheral Nerve Interfaces (C-RPNIs) for closed-loop neuroprosthetic control. 65th Plastic Surgery Research Council, Toronto, ON, May 28-31, 2020.
120. Lee, C., Vaskov, A., Vu, P., Davis, A., Gillespie, R.B., **Kemp, S.W.P.**, Kung, T., Chestek, C., Cederna, P., and Gates, D.H. The Performance of Implantable Electrodes on the Control of a Myoelectric Prosthesis Over One Year Post-Implantation. 44th Annual Meeting of the American Society of Biomechanics, Atlanta, GA, Aug 4-7, 2020.
121. Kubiak CA, Hamill, JB, Kim HH, Roth RS, Cederna PS, **Kemp SWP**, Cederna PS, Geisser ME, Kung TA. Accuracy of patient medication reporting using the Neuropathic Pain Medication Log. American Society for Peripheral Nerve Annual Meeting, January 15-22, 2021.
122. Svientek SR, Bratley JV, Dehdashtian A, Kubiak CA, Cederna PS, **Kemp SWP**. Physiologic Signaling of the Muscle Cuff Regenerative Peripheral Nerve Interface (MC-RPNI) during Volitional Behavior. American Society for Peripheral Nerve Annual Meeting, January 15-22, 2021.
123. Kumar NG, Kubiak CA, Hamill JB, Kim HM, **Kemp SWP**, Tinney MJ, Roth RS, Cederna PS, Geisser ME, Kung TA. Preliminary results of a clinical trial to determine the efficacy of

Regenerative Peripheral Nerve Interfaces for post-amputation pain after lower limb amputations. American Society for Peripheral Nerve Annual Meeting, January 15-22, 2021.

124. Dehdashtian A, Yoon JP, Zhuang Z, Svientek SR, Cederna PS, **Kemp SWP**. Early spinal accessory-to-suprascapular nerve transfer is critical for enhanced functional outcome following traumatic brachial plexus injury. American Society for Peripheral Nerve Annual Meeting, January 15-22, 2021.
125. Svientek SR, Dehdashtian A, Bratley JV, Cederna PS, **Kemp SWP**. Surface-level Regenerative Peripheral Nerve Interfaces (RPNIs) for a novel control method of advanced prosthetic devices. American Society for Peripheral Nerve Annual Meeting, January 15-22, 2021.
126. Vittert AB, Risch MJ, Nelson NS, Donnelys A, Dehdashtian A, Sacks GN, Cederna PS, Buchman SR, **Kemp SWP**. Establishment of Pain Hypersensitivity, Gait Impairment, and Decreased Muscle Force in a Novel Rat Model of Radiation Induced Peripheral Neuropathy. American Society for Peripheral Nerve Annual Meeting, January 15-22, 2021.
127. Vu PP, Vaskov, AK, Ensel SR, Kung TA, Chestek CA, Cederna PS, **Kemp SWP**. Long-term Signal Stability of Regenerative Peripheral Nerve Interfaces (RPNIs) in humans with upper-limb amputations. American Society for Peripheral Nerve Annual Meeting, January 15-22, 2021.
128. Dehdashtian A, Svientek SR, Risch MJ, Ursu DC, Vittert AB, Cederna PS, **Kemp SWP**. Mitigation of neuroma induced neuropathic pain through prophylactic regenerative peripheral nerve interfaces (RPNIs) is sexually dimorphic in rats. American Society for Peripheral Nerve Annual Meeting, January 15-22, 2021.
129. Kubiak CA, Hamill JB, Kim HH, Roth RS, Cederna PS, **Kemp SWP**, Geisser ME, Kung TA. Neuropathic Pain Adversely Impacts Quality of Life in Patients with Lower Extremity Amputations. American Society for Peripheral Nerve Annual Meeting, January 15-22, 2021.
130. Qin Q, Lee S, Pagani CA, Hwang, C, Negri S, **Kemp SWP**, Clemnes TL, Levi B, James AW. Neurovascular coupling during the genesis of trauma-induced heterotopic bone. ORS Annual Meeting, February 12-16, 2021.
131. Yan D, Jiman AA, Bottorff E, Meli D, Moon JD, Ratze D, Welle E, Ouyang Z, Patel P, Chestek CA, **Kemp SWP**, Bruns TM, Yoon E, Seymour JP. Intrafascial recording and chronic tissue reaction to microneedle electrode array for small peripheral nerves. 10th International IEEE/EMBS Conference of Neural Engineering (NER), March 22, 2021.
132. Wisely JP, Dedashtian A, Yoon JP, Zhang Z, Svientek SR, Cederna PS, **Kemp SWP**. Early innervation with spinal accessory-to-suprascapular nerve transfer leads to improved functional outcome in traumatic brachial plexus injuries. 66th Plastic Surgery Research Council Meeting, June 7-10, 2021.
133. Dedashtian A, Svientek SR, Risch MJ, Vittert AB, Timek JH, Ursu DC, Cederna PS, **Kemp SWP**. Sexually dimorphic pattern of neuroma pain mitigation following Regenerative Peripheral Nerve Interface (RPNI) is mediated through the central nervous (CNS) system. 66th Plastic Surgery Research Council Meeting, June 7-10, 2021.
134. Svientek SR, Bratley JV, Dedashtian A, Kubiak CA, Cederna PS, **Kemp SWP**. Physiologic signaling of the Muscle Cuff Regenerative Peripheral Nerve Interface (MC-RPNI) during volitional behavior. 66th Plastic Surgery Research Council Meeting, June 7-10, 2021.
135. Dehdashtian A, Svientek SR, Ursu DC, Kung TA, Cederna PS, **Kemp SWP**. Sensorimotor myoelectric control using surface based Regenerative Peripheral Nerve Interfaces (RPNIs). 66th Plastic Surgery Research Council Meeting, June 7-10, 2021.

136. **Kemp, SWP**. Fat grafting to enhance nerve regeneration after delayed nerve repair. ASPN/PSF 2019 Grant Recipient Talk. American Society for Peripheral Nerve Annual Meeting, Carlsbad, CA, January 14-16, 2022.
137. Kumar NG, Kubiak CA, Hamill JB, Kim HM, Tinney MJ, Roth RS, Geisser ME, Cederna PS, **Kemp SWP**, Kung TA. Regenerative Peripheral Nerve Interface Surgery at the time of Major Lower Limb Amputations: One-Year Outcomes. American Society for Peripheral Nerve Annual Meeting, Carlsbad, CA, January 14-16, 2022.
138. Svientek SR, Wisely JP, Dehdashtian A, Cederna PS, **Kemp SWP**. A Novel Neuromuscular Interface for Exoskeleton Control in the Setting of Peripheral Nerve Injury. American Society for Peripheral Nerve Annual Meeting, Carlsbad, CA, January 14-16, 2022.
139. Dehdashtian A, Wisely JP, Svientek SR, Timek JH, Riegger A, Guy EL, Cederna PS, **Kemp SWP**. Attenuation of neuroma pain in rats via perineural application of minimally processed adipose tissue. American Society for Peripheral Nerve Annual Meeting, Carlsbad, CA, January 14-16, 2022. **BEST RESIDENT PAPER.**
140. Vu PP, Vaskov AK, Kung TA, Chestek CA, Cederna PS, **Kemp SWP**. Stable, long-term multi-grip control using Regenerative Peripheral Nerve Interfaces (RPNIs) in humans with upper-limb amputations. American Society for Peripheral Nerve Annual Meeting, Carlsbad, CA, January 14-16, 2022.
141. Wisely JP, Yoon JP, Cederna PS, Dehdashtian A, Min S, Kim KR, Chung KC, **Kemp SWP**. Comparison of Functional Outcomes of Spinal Accessory-to-Suprascapular Nerve Transfer Versus Standard Nerve Grafting Following Neonatal Brachial Plexus Injury. American Society for Peripheral Nerve Annual Meeting, Carlsbad, CA, January 14-16, 2022.
142. Cinotto G, Dehdashtian A, Cederna PS, **Kemp SWP**. Sensory Somatotopic Mapping and Range of Sensory Modalities Elicited in Different Types of Regenerative Peripheral Nerve Interfaces (RPNIs). American Society for Peripheral Nerve Annual Meeting, Carlsbad, CA, January 14-16, 2022.
143. Dehdashtian A, Svientek SR, Ursu DC, Kung TA, Cederna PS, **Kemp SWP**. Surface myoelectric control of sensorimotor function using Superficial Regenerative Peripheral Nerve Interfaces (S-RPNIs). American Society for Peripheral Nerve Annual Meeting, Carlsbad, CA, January 14-16, 2022.
144. Kumar NG, Kubiak CA, Hamill J, Kim HM, Tinney MJ, Roth RS, Geisser ME, Cederna PS, **Kemp SWP**, Kung TA. One Year Outcomes after Regenerative Peripheral Nerve Interface Surgery for Postamputation Pain: Results of a Prospective Clinical Trial. American Association of Plastic Surgeons Centennial Meeting, San Diego, CA, April 9-12, 2022.
145. Daniel MC, Vittert AB, Nelson NS, Donneys A, Risch MJ, Dehdashtian A, Sacks GN, Cederna PS, Buchman SR, **Kemp SWP**. Pain hypersensitivity, sensorimotor impairment, and decreased muscle force in a novel rat model of radiation induced peripheral neuropathy. 67th Annual Plastic Surgery Research Council, Toronto, ON, Canada, June 8-12, 2022.
146. Vu PP, Vaskov AK, Kung TA, Chestek CA, Cederna PS, **Kemp SWP**. Stable, long-term multi-grip control using Regenerative Peripheral Nerve Interfaces in humans with upper-limb amputations. 67th Annual Plastic Surgery Research Council, Toronto, ON, Canada, June 8-12, 2022.
147. Dehdashtian A, Guy EL, Riegger AE, Kozma KD, Cederna PS, **Kemp SWP**, Ozer K. The effects of subnormothermic plasma and red blood cell based perfusion on the function and viability of limb allografts. 67th Annual Plastic Surgery Research Council, Toronto, ON, Canada, June 8-12, 2022.

148. Timek JH, Guy EL, Dehdashtian A, Riegger A, K, Cederna PS, **Kemp SWP.** Regenerative Peripheral Nerve Interfaces (RPNI) attenuate neuropathic pain and molecular markers associated with symptomatic neuromas in both male and female rats. 67th Annual Plastic Surgery Research Council, Toronto, ON, Canada, June 8-12, 2022.
149. Lee JC, Adidharma W, Dehdashtian A, Cederna PS, **Kemp SWP.** Dermal Sensory Regenerative Peripheral Nerve Interface (DS-RPNI) for multimodal sensory feedback. 67th Annual Plastic Surgery Research Council, Toronto, ON, Canada, June 8-12, 2022.
150. Cinotto GJ, Cederna PS, **Kemp SWP.** Electrophysiologic parameters, somatotopic sensory mapping, and sensory modalities elicited in different types of Regenerative Peripheral Nerve Interfaces (RPNIs). 67th Annual Plastic Surgery Research Council, Toronto, ON, Canada, June 8-12, 2022.
151. Riegger AE, Timek JH, Nelson N, Dehdashtian A, Daniel M, Buchman SR, **Kemp SWP**. Severity of neuropathic pain, sensorimotor impairments, and sensory neuron abnormalities in a rat model of radiation induced neuropathy is dose dependent. 67th Annual Plastic Surgery Research Council, Toronto, ON, Canada, June 8-12, 2022.
152. Svientek SR, Wisely JP, Dehdashtian A, Cederna P, **Kemp SWP.** A novel biologic nerve interface for exoskeleton control in the setting of peripheral nerve compromise. 67th Annual Plastic Surgery Research Council, Toronto, ON, Canada, June 8-12, 2022.
153. Dehdashtian A, Wisely JP, Svientek SR, Guy EL, Riegger AE, Timek JH, Cederna PS, **Kemp SWP.** Perineural application of minimally processed fat tissue to mitigate neuropathic pain in a rat model of neuroma. 67th Annual Plastic Surgery Research Council, Toronto, ON, Canada, June 8-12, 2022.
154. Lee JC, Kubiak CA, Tinney MJ, Harte SE, Kim M, Geisser M, Kung TA, **Kemp SWP**. Agreement of Self-Reported and Electronic Medical Record (EMR) Medication Intake in a Surgical Amputee Population. IASP 2022 World Congress on Pain, Toronto, ON, Canada, September 19-23, 2022.
155. Dehdashtian A, Cederna PS, **Kemp SWP**, Ozer K. Viability and Functional Outcomes of Limb Allografts Following Subnormothermic Plasma and Red Blood Cell Based Perfusion. 77th Annual Meeting of the American Society for Surgery of the Hand, Boston, MA, September 29-October 1, 2022.
156. Lee JC, Kumar NG, Kubiak CA, Hamill J, Kim HM, Tinney MJ, Roth RS, Geisser ME, Cederna PS, **Kemp SWP**, Kung TA. One-year Outcomes Following Regenerative Peripheral Nerve Interface Surgery For Postamputation Pain in A Prospective Clinical Trial. American Academy of Physical Medicine and Rehabilitation (AAPM&R) Annual Meeting, Baltimore, MD, October 20-23, 2022.
157. Lee JC, Kubiak CA, Hamill J, Tinney MJ, Harte SE, Kim HM, Geisser M, Kung TA, **Kemp SWP**. Assessing the Agreement of Medication Intake for Self-Reported and Electronic Medical Record Data in a Surgical Amputee Population. American Academy of Physical Medicine and Rehabilitation (AAPM&R) Annual Meeting, Baltimore, MD, October 20-23, 2022.
158. Dedashtian A, Cinotto G, Guy EL, Kozma KD, Huang SL, Burke KL, Adidharma W, Cederna PS, **Kemp SWP**. Independent Control of Sensorimotor Function using Superficial Regenerative Peripheral Nerve Interfaces (S-RPNIs) in a Rat Model. American Society for Peripheral Nerve Annual Meeting, Miami, FL, January 20-22, 2023.
159. Burke KL, Guy EL, Lee JC, Cinotto G, Patel AA, Hamill NP, Cederna PS, **Kemp, SWP**. Muscle Cuff Regenerative Peripheral Nerve Interface (MC-RPNI) for Exoskeleton Control

Following Nerve Injury During the Early Postnatal Developmental Period in Rats. American Society for Peripheral Nerve Annual Meeting, Miami, FL, January 20-22, 2023.

160. Adidharma W, Lee JC, Dedashtian A, Cederna PS, **Kemp SWP**. The Dermal Sensory Regenerative Peripheral Nerve Interface (DS-RPNI) for Re-establishing Sensory Feedback in Peripheral Afferents. American Society for Peripheral Nerve Annual Meeting, Miami, FL, January 20-22, 2023.
161. Vaskov AK, Lee C, Vu PP, Wallace DM, Davis AJ, Kung TA, Chestek CA, Cederna PS, **Kemp SWP**. Reliable Prosthetic Hand and Wrist Control using Regenerative Peripheral Nerve Interfaces (RPNIs) and Implanted Electrodes. American Society for Peripheral Nerve Annual Meeting, Miami, FL, January 20-22, 2023.
162. Lee JC, Guy EL, Burke KL, Cinotto G, Hamill NP, Kung TA, Cederna PS, **Kemp SWP**. The Effects of Muscle Graft Size to Nerve Fiber Ratio Size on Regenerative Peripheral Nerve Interface (RPNI) Innervation. American Society for Peripheral Nerve Annual Meeting, Miami, FL, January 20-22, 2023.
163. Lee JC, Kumar NG, **Kemp SWP**, Cederna PS, Kung TA. Four-year Pain and Medication Intake Outcomes Following Regenerative Peripheral Nerve Interface (RPNI) Surgery for Treatment or Prevention of Postamputation Pain. American Society for Peripheral Nerve Annual Meeting, Miami, FL, January 20-22, 2023.
164. Cinotto G, Burke KL, Guy EL, Hamill JB, Cederna PS, **Kemp SWP**, Brown DL. Outcomes of Peripheral Nerve Operations Combined with Regenerative Peripheral Nerve Interfaces in the Treatment of Chronic Neuropathic Knee Pain. American Society for Peripheral Nerve Annual Meeting, Miami, FL, January 20-22, 2023.
165. Burke KL, Timek JH, Dehdashtian A, Cinotto G, Guy EL, Riegger AE, Cederna PS, **Kemp SWP**. Attenuation of Molecular Markers and Neuropathic Pain Associated with Symptomatic Neuromas in both Male and Female Rats with the Regenerative Peripheral Nerve Interface (RPNI). American Society for Peripheral Nerve Annual Meeting, Miami, FL, January 20-22, 2023.
166. Vaskov AK, Lee C, Vu PP, Wallace DM, Davis AJ, Kung TA, Chestek CA, Cederna PS, **Kemp, SWP**. Long-term Reliable Prosthetic Hand And Wrist Control Using Regenerative Peripheral Nerve Interfaces (RPNIs) And Implanted Electrodes. Plastic Surgery Research Council 68th Annual Meeting, Cleveland, OH, April 13-16, 2023. **TOP SCORING ABSTRACT. BEST CLINICAL PAPER.**
167. Lee JC, Kerrigan KL, Guy EL, Cinotto G, Hamill NP, Kung TA, Cederna PS, Kemp **SWP.** Varying Muscle Graft To Nerve Fiber Size and Its Impact On Regenerative Peripheral Nerve Interface (RPNI) Reinnervation. Plastic Surgery Research Council 68th Annual Meeting, Cleveland, OH, April 13-16, 2023.
168. Burke KL, Kelly DP, Kuperus HR, Tian Y, Gillespie RB, Cederna PS, **Kemp SWP**. Evaluation Of User Motor Intention Detection For Exoskeleton Control With The Muscle Cuff Regenerative Peripheral Nerve Interface (MC-RPNI) In A Rat Model. Plastic Surgery Research Council 68th Annual Meeting, Cleveland, OH, April 13-16, 2023.
169. Burke KL, Guy EL, Lee JC, Cinotto G, Patel AA, Huang SL, Hamill NP, Cederna PS, **Kemp SWP.** Signal Amplification Of The Muscle Cuff Regenerative Peripheral Nerve Interface (MC-RPNI) For Exoskeleton Control Following Nerve Injury In Neonatal Rats. Plastic Surgery Research Council 68th Annual Meeting, Cleveland, OH, April 13-16, 2023.
170. Adidharma W, Lee JC, Rivera-Santana M, Dehdashtian A, Cederna PS, **Kemp SWP**. Functional Reinnervation of Cutaneous Mechanoreceptors in a Biologic Patient-Prosthetic

Regenerative Peripheral Nerve Interface for the Restoration of Sensory Feedback. Plastic Surgery Research Council 68th Annual Meeting, Cleveland, OH, April 13-16, 2023.

171. Lee JC, Kumar NG, **Kemp SWP**, Cederna PS, Kung TA. Regenerative Peripheral Nerve Interface Surgery And Its Four-year Pain And Medication Intake Outcomes For Treatment Or Prevention Of Postamputation Pain. Plastic Surgery Research Council 68th Annual Meeting, Cleveland, OH, April 13-16, 2023. **BEST SHORT PAPER.**
172. Wu KL, Adidharma W, Cederna PS, **Kemp SWP**. Attenuation of neuroma pain with the Composite Regenerative Peripheral Nerve Interface (C-RPNI) in a rodent neuroma model. 2023 Moses Gunn Conference, Ann Arbor, MI, May 19, 2023.
173. **Kemp SWP**. Prophylactic RPNIs attenuate limb and phantom pain in patients undergoing amputation: One year results of a prospective clinical trial. 2023 Sunderland Society Meeting, Banff, AB, June 28-July 1, 2023.
174. **Kemp SWP**. Long term stable regenerative peripheral nerve interfaces (RPNIs) for prosthetic control. 2023 Sunderland Society Meeting, Banff, AB, June 28-July 1, 2023.
175. Adidharma W, Cederna PS, **Kemp SWP**. Bidirectional Sensorimotor Signaling Using the Composite Regenerative Peripheral Nerve Interface (C-RPNI) in a rodent model. European Plastic Surgery Research Council, Geneva, Switzerland, August 24-27th, 2023.
176. Vaskov AK, Wallace DM, Kung TA, Chestek CA, Cederna PS, **Kemp SWP**. Restoring fine motor control with Regenerative Peripheral Nerve Interfaces (RPNIs) and implanted EMG electrodes. American Society for Peripheral Nerve Annual Meeting, Nassau, Bahamas, January 12-14, 2024.
177. Wang CS, Hamill JB, Kim HM, Tinney MJ, Cederna PS, Geisser ME, **Kemp SWP**, Kung TA. Regenerative Peripheral Nerve Interface (RPNI) surgery for treatment and prevention of painful neuroma in lower limb amputations: One-year outcomes. American Society for Peripheral Nerve Annual Meeting, Nassau, Bahamas, January 12-14, 2024.
178. Mohanty AJ, Cederna PS, **Kemp SWP**, Kung TA. Clinical outcomes of prophylactic Regenerative Peripheral Nerve Interface (RPNI) surgery in pediatric lower limb amputation patients. American Society for Peripheral Nerve Annual Meeting, Nassau, Bahamas, January 12-14, 2024.
179. Berberoglu I, Burke KL, Wood MD, Cederna PS, **Kemp, SWP**. Nerve regeneration and functional recovery following delayed application of Regenerative Peripheral Nerve Interface (RPNI) in a rat model. American Society for Peripheral Nerve Annual Meeting, Nassau, Bahamas, January 12-14, 2024.
180. Lee JC, Adidharma W, Cederna PS, **Kemp SWP**, Kung TA. Risk factors associated with secondary surgical procedures for pain following initial Regenerative Peripheral Nerve Interface (RPNI) surgery. American Society for Peripheral Nerve Annual Meeting, Nassau, Bahamas, January 12-14, 2024.
181. Adidharma W, Jilala RR, Vaskov AK, Wu KL, Rivera-Santana MV, Cederna PS, **Kemp SWP**. The Composite Regenerative Peripheral Nerve Interface (C-RPNI) facilitates bidirectional sensorimotor signaling in a rodent model. American Society for Peripheral Nerve Annual Meeting, Nassau, Bahamas, January 12-14, 2024. **BEST RESIDENT PAPER.**
182. Burke KL, Berberoglu I, Lin BJ, Cederna PS, **Kemp SWP**. Signal amplification of the MC-RPNI for exoskeleton control following volumetric muscle loss (VML) injury. American Society for Peripheral Nerve Annual Meeting, Nassau, Bahamas, January 12-14, 2024.

183. Levy J, Zarska A, Beharry K, Castro AN, Pourak K, Adidharma W, **Kemp SWP**, Hooper R. Time lag and factors impacting prosthetic acquisition following major lower extremity amputations. 19th Annual Academic Surgical Congress, Washington, DC, February 6-8, 2024.
184. Levy J, Kamdar N, Adidharma W, **Kemp SWP**, Hooper R. Gender-based analysis of time interval between lower extremity amputation and prosthetic acquisition. 19th Annual Academic Surgical Congress, Washington, DC, February 6-8, 2024.
185. Levy J, Kamdar N, Adidharma W, **Kemp SWP**, Hooper R. Gender disparities in the acquisition of lower extremity prosthetics following major limb amputation. Association for Clinical and Translational Science, Las Vegas, NV, April 3-5, 2024.
186. Adidharma W, Kodali R, Jillala RR, Huang SL, Santana-Rivera MV, Kozma KD, Cederna PS, **Kemp SWP**. The Composite Regenerative Peripheral Nerve Interface (C-RPNI) can facilitate multimodal sensory afferent signaling after mixed nerve transection. Plastic Surgery Research Council 69th Annual Meeting, Boston, MA, May 16-19, 2024. **CLIFFORD C. SNYDER AWARD FOR BEST RESIDENT PAPER.**
187. Vaskov AK, Wallace DM, Kung TA, Chestek CA, Cederna PS, **Kemp SWP**. Restoring lost function with Regenerative Peripheral Nerve Interfaces and implanted EMG electrodes. Plastic Surgery Research Council 69th Annual Meeting, Boston, MA, May 16-19, 2024. **BEST CLINICAL PAPER.**
188. Huang SL, Adidharma W, Kodali R, Maurer R, Kozma KD, Cederna PS. **Kemp SWP**. Attenuation of neuroma pain with prophylactic Composite Regenerative Peripheral Nerve Interface (C-RPNI) in a rodent neuroma model. Plastic Surgery Research Council 69th Annual Meeting, Boston, MA, May 16-19, 2024. **JOHN F. CRIKELAIR RESEARCH AWARD.**
189. Berberoglu I, **Kemp SWP**, Hooper MD. Regenerative Peripheral Nerve Interface for the prevention of postamputation pain in oncology patients. Plastic Surgery Research Council 69th Annual Meeting, Boston, MA, May 16-19, 2024.
190. Burke KL, Berberoglu I, Lin BJ, Cederna PS, **Kemp SWP**. Restoration of function following volumetric muscle loss (VML) injury using the MC-RPNI for intuitive exoskeleton control. Plastic Surgery Research Council 69th Annual Meeting, Boston, MA, May 16-19, 2024.
191. Rivera-Santana MV, Adidharma W, Alkaabi F, Tian Y, Wang X, Scheven U, Wu X, Cederna PS, Liu Z, **Kemp SWP**. Alterations in functional connectivity of pain-relevant brain regions after peripheral nerve injury. Plastic Surgery Research Council 69th Annual Meeting, Boston, MA, May 16-19, 2024.
192. Mohanty AJ, Cederna PS, **Kemp SWP**, Kung TA. Clinical outcomes of prophylactic Regenerative Peripheral Nerve Interface (RPNI) surgery in pediatric lower limb amputation patients. Plastic Surgery Research Council 69th Annual Meeting, Boston, MA, May 16-19, 2024.
193. Tian Y, Burke KL, Kuperus H, Kelly DP, Jillala R, Adidharma W, Cederna PS, Gillespie RB, **Kemp SWP**. Towards Advanced Exoskeleton Control: Muscle-Cuff Regenerative Peripheral Nerve Interface (MC-RPNI) as a Bionic Approach in a Rat Model. Rice Neuroengineering Conference, Houston, TX, May 18-19, 2024.
194. Gillespie L, Tian Y, Kuperus H, Burke KL, Kozma KD, Kodali R, Adidharma W, Kelly DP, Cederna PS, Gillespie RB, **Kemp SWP**. Development of exoskeleton control via the Muscle-Cuff Regenerative Peripheral Nerve Interface (MC-RPNI) in a rat model. 35th Annual Moses Gunn Research Conference, Ann Arbor, MI, June 7, 2024.

195. Levy J, Adidharma W, Wierenga A, Kodali R, Cederna PS, Akaaboune M, **Kemp SWP**. Comparison of crushed and healthy muscle grafts in Regenerative Peripheral Nerve Interfaces. European Plastic Surgery Research Council, Brno, Czech Republic, August 21-24, 2024.
196. Adidharma W, Kodali R, Jillala RR, Huang SL, Santana-Rivera MV, Cederna PS, **Kemp SWP.** The Composite Regenerative Peripheral Nerve Interface (C-RPNI) facilitates afferent signaling needed for post-amputation sensory restoration. European Plastic Surgery Research Council, Brno, Czech Republic, August 21-24, 2024.
197. Vaskov AK, Wallace DM, Kung TA, Chestek CA, Cederna PS, **Kemp SWP**. Functional Restoration using Regenerative Peripheral Nerve Interfaces and Implanted EMG Electrodes. European Plastic Surgery Research Council, Brno, Czech Republic, August 21-24, 2024.
198. Kuperus H, Tian Y, Burke KL, Gillespie L, **Kemp SWP**, Gillespie RB. Design and implementation of a triggered response experiment and backdrivable rodent exoskeleton. BIOROB 2024 10th IEEE Conference on Biomedical Robotics and Biomechatronics. Heidedlbury, Germany, Sept.1-4, 2024.
199. **Kemp SWP.** The Composite Regenerative Peripheral Nerve Interface (C-RPNI) Facilitates Multimodal Sensory Afferent Signaling and Neuroma Attenuation. Sunderland Society Annual Meeting, Mackinac Island, MI, September 13-16, 2024. **BEST BASIC SCIENCE PAPER.**
200. **Kemp SWP.** Restoring Lost Function With Regenerative Peripheral Nerve Interfaces And Implanted EMG Electrodes. Sunderland Society Annual Meeting, Mackinac Island, MI, September 13-16, 2024.
201. Levy J, Pourak K, Adidharma W, **Kemp SWP**, Hooper R. Missing the golden window: Examining time to prosthetic acquisition following upper extremity amputations. Plastic Surgery The Meeting, San Diego, CA, September 2024.
202. Clements BM, **Kemp SWP**, Traynor JR. Opioid positive allosteric modulators enhance methadone-mediated anti-allodynia in a rat model of peripheral nerve injury. The Society for Neuroscience Annual Meeting, Chicago, IL, October 5-9, 2024.
203. Senger JL, Hardy P, **Kemp SWP**, Kerr BJ, Chan KM, Webber CA. Targeted muscle reinnervation and Regenerative Peripheral Nerve Interfaces to prevent neuroma pain. The Society for Neuroscience Annual Meeting, Chicago, IL, October 5-9, 2024.
204. Tian Y, Kuperus H, Burke KL, Kozma K, Kodali R, Adidharma W, Gillespie RB, **Kemp SWP**. Development of bionic exoskeleton control via the Muscle Cuff Regenerative Peripheral Nerve Interface (MC-RPNI). The Society for Neuroscience Annual Meeting, Chicago, IL, October 5-9, 2024.
205. Adidharma W, Tian Y, Kodali R, Stoneback L, Nicovic M, Jeevaraj J, ,Jillala RR, Cederna PS, Lepley LK, **Kemp, SWP**. The Composite Regenerative Peripheral Nerve Interface (C-RPNI) facilitates sensorimotor signaling during volitional ambulation. American Society for Peripheral Nerve Annual Meeting, Big Island, HI, January 17-19, 2025.
206. Levy JS, Adidharma W, Wierenga A, Tian Y, Kodali R, Cederna PS, Akaaboune M, **Kemp SWP**. Use of traumatically injured muscle in Regenerative Peripheral Nerve Interface. American Society for Peripheral Nerve Annual Meeting, Big Island, HI, January 17-19, 2025.
207. Adidharma W, Rivera-Santana MV, Alkaabi F, Tian Y, Jeevaraj J, Cederna PS, Liu Z, **Kemp SWP**. Prophylactic RPNI Surgery Attenuates Maladaptive Connectivity Changes In Pain-Relevant Brain Regions That Occur After Nerve Transection Injury. American Society for Peripheral Nerve Annual Meeting, Big Island, HI, January 17-19, 2025.

208. Mohanty AJ, Saunders MN, Kung TA, **Kemp SWP**, Cederna PS, Brown DL, Adidharma W. Outcomes of Targeted Sensory Neurectomy Combined with Dermal Sensory Regenerative Peripheral Nerve Interface Surgery (DS-RPNI) as Treatment for Chronic Neuropathic Pain of the Foot and Ankle. American Society for Peripheral Nerve Annual Meeting, Big Island, HI, January 17-19, 2025.
209. Lee JC, Berberoglu I, Kung TA, Cederna PS, **Kemp SWP**. Determination of Optimal Nerve Caliber to Muscle Fiber Ratio for Regenerative Peripheral Nerve Interface (RPNI) surgery. American Society for Peripheral Nerve Annual Meeting, Big Island, HI, January 17-19, 2025.
210. Svientek S, Wisely J, Hamill NP, Dehdashtian A, Cederna PS, **Kemp SWP**. Characterization of a Novel Neuromuscular Interface for Exoskeleton Control in the Setting of Muscular Injury. American Society for Peripheral Nerve Annual Meeting, Big Island, HI, January 17-19, 2025. **BEST RESIDENT PAPER.**
211. Berberoglu I, Nawrocki ER, Tian Y, Song E, Cederna PS, **Kemp SWP**. A Novel Animal Model Of Hindlimb Amputation To Evaluate Chronic Pain. Plastic Surgery Research Council 70th Annual Meeting, St. Louis, MO, May 1-4, 2025.
212. Vaskov AK, Wallace DM, Costello JR, Davis AJ, Gates DH, Chestek CA, Cederna PS, **Kemp SWP**. Regenerative Peripheral Nerve Interfaces (RPNIs) And Implanted Electrodes Enable Kinematic Control Of Multiple Degrees Of Freedom. Plastic Surgery Research Council 70th Annual Meeting, St. Louis, MO, May 1-4, 2025.
213. Adidharma W, Kodali R, Tian Y, Stoneback L, Nicovic M, Jeevaraj J, Jillala R, Cederna PS, Lepley LK, **Kemp SWP**. Physiologic Sensorimotor Neural Signaling With The Composite Regenerative Peripheral Nerve Interface (c-rpni) In A Rodent Model. Plastic Surgery Research Council 70th Annual Meeting, St. Louis, MO, May 1-4, 2025.
214. Levy JS, Adidharma W, Wierenga AJ, Tian Y, Bordin A, Kodali R, Cederna PS, Akaaboune, **Kemp SWP**. Traumatically Injured Muscle Model In Regenerative Peripheral Nerve Interface. Plastic Surgery Research Council 70th Annual Meeting, St. Louis, MO, May 1-4, 2025.
215. Berberoglu I, Tian Y, Kurke K, Wood MD, Cederna PS, **Kemp SWP**. Functional Motor Restoration Following Chronic Axotomy With Delayed Regenerative Peripheral Nerve Interface (RPNI) In A Rat Model. Plastic Surgery Research Council 70th Annual Meeting, St. Louis, MO, May 1-4, 2025.
216. Tian Y, Alkaabi FM, Rivera-Sanatana MV, Adidharma W, Cederna PS, Liu Z, **Kemp SWP**. Resting State Functional MRI Reveals Connectivity Changes In The Pain Matrix Following Prophylactic RPNI Surgery. Plastic Surgery Research Council 70th Annual Meeting, St. Louis, MO, May 1-4, 2025.
217. Wang MJ, Berberoglu I, Cederna PS, **Kemp SWP**. Functional Motor Restoration Following Chronic Axotomy with Delayed Regenerative Peripheral Nerve Interface (RPNI) in a Rat Model. 36th Annual Moses Gunn Research Conference, Ann Arbor, MI, May 30th, 2025.
218. Gillespie LT, Kuperus HR, Tian Y, Lee CH, Bachman G, Gillespie RB, Cederna PS, **Kemp SWP**. Using Muscle Cuff Regenerative Peripheral Nerve Interface Signals to Investigate Motor Adaptation to Exoskeleton Imposed Force Fields. 36th Annual Moses Gunn Research Conference, Ann Arbor, MI, May 30th, 2025.
219. Kodali R, Adidharma W, Jillala R, Cederna PS, **Kemp SWP**. A Novel Peripheral Nerve Model for Concurrent Motor Control and Sensory Feedback. 36th Annual Moses Gunn Research Conference, Ann Arbor, MI, May 30th, 2025.

220. Lee CH, Rastegar A, Tian Y, Wang MJ, Dean C, Cederna PS, **Kemp, SWP**. Brachial Plexus Injury Model in Rats for Future Exoskeleton Control Interface Development. 36th Annual Moses Gunn Research Conference, Ann Arbor, MI, May 30th, 2025.
221. Nawrocki ER, Berboroglu I, Levy JS, Rastegar A, Tian Y, Song E, Cederna PS, **Kemp SWP**. A Novel Rodent Model of Lower Extremity Amputation to Evaluate Pain. 36th Annual Moses Gunn Research Conference, Ann Arbor, MI, May 30th, 2025.
222. Levy JS, Adidharma W, Wierenga A, Kodali R, Cederna PS, Akaaboune M, **Kemp SWP**. Viability of crushed muscle graft in Regenerative Peripheral Nerve Interface. 36th Annual Moses Gunn Research Conference, Ann Arbor, MI, May 30th, 2025.
223. Rastegar A, Berberoglu I, Tian Y, Burke KL, Cederna PS, **Kemp SWP**. Regenerative Capacity and Functional Recovery Following Volumetric Muscle Loss (VML) Injury in a Rat Model. 36th Annual Moses Gunn Research Conference, Ann Arbor, MI, May 30th, 2025.
224. Surkin JAW, Carlson J, Eccarius A, Fischer A, Gonzalez M, **Kemp SWP**, Gates DH. Assessing the Performance of the Box and Blocks Test in a Virtual Environment. 36th Annual Moses Gunn Research Conference, Ann Arbor, MI, May 30th, 2025.
225. Tian Y, Burke KL, Rastegar A, Kuperus HR, Kodali R, Adidharma W, Nicovic M, Cederna PS, Gillespie RB, **Kemp SWP**.Development of Bionic Exoskeleton Control via the Muscle Cuff Regenerative Peripheral Nerve Interface (MC-RPNI). 36th Annual Moses Gunn Research Conference, Ann Arbor, MI, May 30th, 2025.
226. Tian Y, Burke KL, Rastegar A, Kuperus HR, Kodali R, Adidharma W, Nicovic M, Cederna PS, Gillespie RB, **Kemp SWP**. Development of Bionic Exoskeleton Control via the Muscle Cuff Regenerative Peripheral Nerve Interface (MC-RPNI). North American Neuromodulation Society Annual Meeting, Arlington, VA, June 12-14, 2025.
227. Lee CH, Tian Y, Rastegar A, Wang MJ, Cederna PS, **Kemp SWP**. Development of a Partial Brachial Plexus Denervation Model for Assessing Muscle Function and Nerve Injury in Rats. North American Neuromodulation Society Annual Meeting, Arlington, VA, June 12-14, 2025.
228. Rastegar A, Tian Y, Lee CH, Wang MJ, Adidharma A, Burke KL, Cederna PS, **Kemp SWP**. Long-term maturation effects on the function and structure of the Muscle Cuff Regenerative Peripheral Nerve Interface (MC-RPNI). European Plastic Surgery Research Council, Utrecht, Netherlands, August 21-23.
229. Wang MJ, Wagner MJ, Mohanty AJ, **Kemp SWP**, Cederna PS, Kung TA. Mitigating Post-Amputation Pain Through Regenerative Peripheral Nerve Interface (RPNI) Surgery: A Gender-Stratified Analysis of Pain Outcomes. European Plastic Surgery Research Council, Utrecht, Netherlands, August 21-23.
230. Wang M, Matusko N, Kung TA, **Kemp SWP**, Cederna PS. Trends in the Adoption of Regenerative Peripheral Nerve Interface Surgery: A 14-Year Analysis. European Plastic Surgery Research Council, Utrecht, Netherlands, August 21-23.
231. Adidharma W, KL, Rastegar A, Kuperus HR, Kodali R, Nicovic M, Cederna PS, Gillespie RB, **Kemp SWP** Accurate detection of motor intent with The Muscle Cuff Regenerative Peripheral Nerve Interface (MC-RPNI). European Plastic Surgery Research Council, Utrecht, Netherlands, August 21-23.
232. Rastegar A, Levy JS, Tian Y, Wang MJ, Wierenga A, Cederna PS, **Kemp SWP**. Impact of Muscle Fiber Composition on RPNI Performance in a Rodent Model. 94th Annual Plastic Surgery The Meeting, New Orleans, LA, October 9-12.

233. Rastegar A, Lee CH, Tian Y, Wang MJ, Dean C, Levy JS, Cederna PS, **Kemp SWP**. Brachial Plexus Injury Model in Rodent for Future Development of Exoskeleton Biological Interface to Restore Function. 94th Annual Plastic Surgery The Meeting, New Orleans, LA, October 9-12.
234. Wang MJ, Wagner MJ, Mohanty AJ, **Kemp SWP**, Cederna PS, Kung TA. Gender Based Differences in Pain Outcomes Following Regenerative Peripheral Nerve Interface: A Retrospective Cohort Analysis. 94th Annual Plastic Surgery The Meeting, New Orleans, LA, October 9-12.
235. Kuperus H, Tian Y, Gillespie L, Lee CH, Rastegar A, **Kemp SWP**, Gillespie RB. Modulating Muscle Activation via Exoskeleton-Applied Resistive Loading During Rodent Locomotion. 12th Annual International Conference on Neural Engineering, San Diego, CA, November 11-14.
236. Bailey Z, Cuttaz E, Lee A, Adidharma W, Portillo-Lara R, Turner E, Goding J, **Kemp SWP**, Roche A, Green R. Development of Auxetic-Patterned Electrode Array for Regenerative Peripheral Nerve Interfaces. 12th Annual International Conference on Neural Engineering, San Diego, CA, November 11-14.

Peer-Reviewed Publications

1. Parker LA, **Kemp, SWP**: Tetrahydrocannabinol (THC) interferes with conditioned retching in *Suncus murinus*: An animal model of anticipatory nausea and vomiting (ANV). *Neuro Report*, 12, 749-751, 2001.
2. Cupchik GC, **Kemp SWP**: Aesthetic distance and responses to literary passages. *Spiel*, 2, 343-356, 2004.
3. **Kemp SWP**, Cupchik GC: The emotionally evocative effects of paintings. *Visual Arts Research*, 32 (2), 2-12, 2007.
4. **Kemp SWP**, Walsh SK, Zochodne DW, Midha R: A novel method for establishing daily in vivo concentration gradients of soluble nerve growth factor (NGF). *Journal of Neuroscience Methods*, 165, 83-88, 2007.
5. **Kemp SWP**, Walsh SK, Midha R: Growth factor and stem cell enhanced conduits in peripheral nerve regeneration and repair. *Neurological Research*, 30 (10), 1-9, 2008.
6. **Kemp SWP**, Syed S, Walsh SK, Zochodne DW, Midha R: Collagen nerve conduits promote enhanced axonal regeneration, Schwann cell association, and neovascularization compared to silicone conduits. *Tissue Engineering Part A*, 15 (8), 1975-1988, 2009.
7. Walsh SK, Biernaskie J, **Kemp SWP**, Midha R: Supplementation of acellular nerve grafts with skin-derived precursor cells promotes peripheral nerve regeneration. *Neuroscience*, 164 (3), 1097-1107, 2009.
8. Walsh SK, Gordon T, Addas BMJ, **Kemp SWP**, Midha R: Skin derived precursor cells enhance peripheral nerve regeneration following chronic denervation. *Experimental Neurology*, 223, 221-228, 2010.
9. **Kemp SWP**, Alant J, Walsh SK, Webb AA, Midha R: Behavioral and anatomical analysis of selective tibial nerve branch transfer to the deep peroneal nerve in the rat. *European Journal of Neuroscience*, 31 (6), 1074-1090, 2010.
10. **Kemp SWP**, Webb AA, Dhaliwal S, Syed S, Walsh SK, Midha R: Dose and duration of nerve growth factor (NGF) administration determine the extent of behavioral recovery following peripheral nerve injury in the rat. **EDITOR'S CHOICE: BEST PAPER.** *Experimental Neurology*, 229 (2), 460-470, 2011.

11. Wood MD, **Kemp SWP**, Weber C, Borschel GH, Gordon T: Outcome measures of peripheral nerve regeneration. *Annals of Anatomy*, 193(4), 321-333, 2011.
12. Walsh SK, Syed S, Forden J, **Kemp SWP**, Midha R: Fate of Stem Cell Transplants in Peripheral Nerves. *Stem Cell Research*, 8, 226-238, 2012.
13. Alant JD, **Kemp SWP**, Khu KJ, Kumar R, Webb AA, Midha R: Traumatic neuroma in continuity injury model in rodents. *Journal of Neurotrauma*, 29(8), 1691-703, 2012.
14. Wood MD, Kim H, Bibily A, **Kemp SWP**, Lafontaine C, Gordon T, Shoichet MS, Borschel GH: GDNF released from microspheres enhances nerve regeneration after delayed nerve repair. *Muscle and Nerve*, 46, 122-124, 2012.
15. Wood MD, Gordon T, Kim H, Szynkaruk M, Phua P, LaFontaine C, **Kemp SWP**, Shoichet M, Borschel GH: Fibrin gels containing GDNF microspheres increase axonal regeneration after delayed peripheral nerve repair. *Regenerative Medicine*, 8 (1), 27-37, 2012
16. Szynkaruk M, **Kemp SWP**, Wood MD, Gordon T, Borschel GH: Experimental and Clinical Evidence for Use of Decellularized Nerve Allografts in Peripheral Nerve Gap Reconstruction. *Tissue Engineering, Part B*, 19 (1), 83-96, 2013.
17. Wood MD, Gordon T, **Kemp SWP**, Liu E, Kim H, Shoichet M, Borschel GH: Functional motor recovery is improved due to local placement of GDNF microspheres after delayed nerve repair. **EDITOR'S CHOICE: BEST PAPER**. *Biotechnology and Bioengineering*, 110 (5), 1272-1281, 2013.
18. **Kemp SWP**, Phua PD, Stanoulis KN, Wood MD, Liu EH, Gordon T, Borschel GH: Functional recovery following nerve injury in the transgenic Thy1-GFP rat. *Journal of the Peripheral Nervous System*, 18 (3), 220-3, 2013.
19. Wood MD, **Kemp SWP**, Liu E, Szynkaruk M, Gordon T, Borschel GH: Rat-derived processed nerve allografts support more axon regeneration in rat than human-derived processed nerve xenografts. *Journal of Biomedical Materials Research: Part A*, 102 (4), 1085-91, 2014
20. **Kemp SWP**, Szynkaruk M, Stanoulis KN, Wood, MD, Liu EH, Willand MP, Morlock L, Naidoo J, Williams NS, Ready JM, Mangano TJ, Beggs S, Salter MW, Gordon T, Pieper AA, Borschel GH: Pharmacologic rescue of motor and sensory function by the neuroprotective compound P7C3 following neonatal nerve injury. *Neuroscience*, 284, 202-16, 2015
21. **Kemp SWP**, Chiang CD, Liu EH, Wood MD, Willand MP, Gordon T, Borschel GH: Characterization of neuronal death and functional deficits following nerve injury during the early postnatal developmental period in rats. *Developmental Neuroscience*, 37(1):66-77, 2015
22. Willand MP, Chiang CD, Zhang JF, **Kemp SWP**, Borschel GH, Gordon T: Daily electrical muscle stimulation enhances functional recovery following nerve transection and repair in rats. *Neurorehabilitation and Neural Repair*, 29(7), 690-700, 2015
23. Zurek AA, **Kemp SWP**, Aga Z, Walker S, Milenkovic M, Ramsey AJ, Sibille E, Scherer S, Orser BA: α5GABB$_A$ receptor deficiency causes autism-like behaviors. *Annals of Clinical and Translational Neurology*, 3(5), 392-398, 2016.
24. **Kemp SWP**, Cederna PS, Midha R: Comparative outcome measures in peripheral regeneration studies. *Experimental Neurology*, 287(Pt.3), 348-357, 2017.
25. **Kemp SWP**, Urbanchek MG, Irwin ZT, Chestek CA, Cederna PS: Development of regenerative peripheral nerve interfaces for motor control of neuroprosthetic devices. *SPIE*, 10194, 1019415-1-7, 2017.
26. Ives GA, Kung TA, Nghiem BT, Ursu DC, Brown DL, Cederna PS, **Kemp SWP**. Current state of the surgical treatment of terminal neuromas. *Neurosurgery*, 83(3), 354-364, 2018.

27. Kubiak CA, Kung TA, Brown DL, Cederna PS, **Kemp SWP**. State of the art technique in treating peripheral nerve injury. *Plastic and Reconstructive Surgery*, 141(3), 702-710, 2018.
28. Kubiak CA, **Kemp SWP**, Cederna PS. The regenerative peripheral nerve interface for neuroma management. *JAMA Surgery*, 153(7), 681-682, 2018.
29. Frost CM, Ursu DC, Flattery SM, Nedic A, Hassett CA, Moon JD, Buchanan PJ, Gillespie RB, Kung TA, **Kemp SWP**, Cederna PS, Urbanchek, MG. Regenerative peripheral nerve interfaces for real-time, proportional control of a neuroprosthetic hand. *Journal of NeuroEngineering and Rehabilitation*, 15(1), 108-117, 2018.
30. Kubiak CA, Etra JW, Brandacher G, Kung TA, **Kemp SWP**, Lee WPA, Cederna PS. Restoration of upper limb function following limb loss: Prosthetic rehabilitation versus vascularized composite allotransplantation. *Plastic and Reconstructive Surgery*, 143(6), 1688-1701, 2019.
31. Kubiak CA, **Kemp SWP**, Cederna PS, Kung TA. Prophylactic regenerative peripheral nerve interfaces (RPNIs) to prevent postamputation pain. *Plastic and Reconstructive Surgery*, 144(3), 421e-430e, 2019.
32. Gok E, Kubiak CA, Guy E, Ponder M, Hoenerhoff DVM, Rojas-Pena A, **Kemp SWP**, Bartlett RH, Ozer K. Long-term effects of hypothermic ex-situ perfusion on skeletal muscle metabolism, structure, and force generation after transplantation. *Transplantation*, 103(10), 2105-2112, 2019.
33. Hanwright PJ, Rath JL, von Guionneau N, Harris TG, Sarhane KA, **Kemp SWP**, Hoke A, Cederna PS, Tuffaha SH. Stimulated grip strength measurement: Validation of a novel method for functional assessment. *Muscle and Nerve*, 60(4), 437-442, 2019.
34. Li X, Kubiak CA, Ma J, **Kemp SWP**, Cederna PS, Yang X. Forehead fat grafting: Asian facial contouring and augmentation. *Plastic and Reconstructive Surgery*, 144(5), 1057-1065, 2019.
35. Gok E, Kubiak CA, Guy E, **Kemp SWP**, Ozer K. The effect of cold preservation on skeletal muscle after VCA transplantation. *Journal of Reconstructive Microsurgery*, 36(1), 9-15, 2020.
36. Kubiak CA, Grochmal J, Kung TA, Cederna PS, Midha R, **Kemp SWP**. Stem-cell based therapies to enhance peripheral nerve regeneration. *Muscle and Nerve*, 61(4), 449-459, 2020.
37. Vu PP, Irwin ZT, Vaskov AK, Henning PT, Lueders D, Laidlaw AT, Nu CS, Gates DH, Gillespie RB, **Kemp SWP**, Kung TA, Chestek CA, Cederna PS. A regenerative peripheral nerve interface allows real-time control of an artificial hand in upper limb amputees. *Science and Translational Medicine*, 12(533), 1-11, 2020.
38. Vu PP, Chestek CA, Nason SR, Kung TA, **Kemp SWP**, Cederna PS. The future of rehabilitation robotics in research and practice. *Muscle and Nerve*, 61(6), 708-718, 2020.
39. Svientek SR, Ursu DC, Cederna PS, **Kemp SWP**. Fabrication of the composite regenerative peripheral nerve interface (C-RPNI) in the adult rat. *JoVE*, 156, 1-14, 2020.
40. Svientek SR, **Kemp SWP**, Cederna PS, Kung TA. The clinical significance of a swollen neuroma: A meaningful distinction or an incidental finding? *Annals of Palliative Medicine*, 9 (6), 4412-4415, 2020.
41. Dehdashtian A, Bratley JV, Svientek SR, Kung TA, Awan TM, Cederna PS, **Kemp SWP**. Autologous fat grafting for nerve regeneration and neuropathic pain: Current state from bench to bedside. *Regenerative Medicine*, 15 (10), 2209-2228, 2020.
42. Hu Y, Ursu DC, Sohasky RA, Sando IC, French ZP, Mays EA, Nedic A, Moon JD, Kung TA, Cederna PS, **Kemp SWP**, Urbanchek MG. Regenerative peripheral nerve interface (RPNI) free muscle graft mass and function. *Muscle and Nerve*, 63(3), 421-429, 2021.

43. Lee S, Hwang C, Marini S, Tower RJ, Pagani CA, Stepien DM, Qin Q, Negri S, Sorkin M, Kubiak CA, Visser ND, Meyers CA, Wang Y, Rasheed HA, Xu J, Miller S, Huber AK, Minichello L, Cederna PS, **Kemp SWP**, Clemens TL, James AW, Levi B. NGF-TrkA signaling dictates neural ingrowth and aberrant osteochondral differentiation after soft tissue trauma. *Nature Communications*, 1-20, 2021.
44. Kubiak CA, Svientek SR, Dehdashtian A, Bratley JV, Kung TA, Cederna PS, and **Kemp SWP**. Physiologic Signaling and Viability of the Muscle Cuff Regenerative Peripheral Nerve Interface (MC-RPNI). *Journal of Neural Engineering*, 1-15, 2021.
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46. Yoon JP, Cederna PS, Dedashtian A, Min S, Jung Y, Kim K, Chung KC, **Kemp SWP**. A systematic review comparing outcomes of spinal accessory-to-suprascapular nerve transfer in neonatal brachial plexus injury. *Orthopaedics*, 45(1), 7-12, 2022.
47. Svientek SR, Wisely JP, Dehdashtian A, Bratley JV, Cederna PS, **Kemp SWP**. The Muscle Cuff Regenerative Peripheral Nerve Interface for the amplification of intact peripheral nerve signals. JoVE, 179, 2022.
48. Vu PP, Lu C, Vaskov AK, Gates DH, Gillespie RB, **Kemp SWP**, Chestek CA, Cederna PS, Kung TA. Restoration of proprioception and cutaneous sensation using Regenerative Peripheral Nerve Interfaces (RPNIs) in humans with upper-limb amputation. *Plastic and Reconstructive Surgery*, 149 (6), 1149e-1154e, 2022.
49. Adidharma W, Khouri AN, Lee JC, Vanderboll K, Kung TA, Cederna PS, **Kemp SWP**. Sensory nerve regeneration and reinnervation in muscle following peripheral nerve injury. *Muscle & Nerve*, 6 (44), 384-396, 2022.
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