

DR. GENEVIEVE C. JACOBS

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Education

- 2017-2020 Physical Medicine and Rehabilitation Residency
University of Louisville: Louisville, KY
- 2016-2017 Preliminary Internship
University of Louisville: Louisville, KY
- 2012- 2016 Doctor of Osteopathic Medicine
Edward Via College of Osteopathic Medicine: Blacksburg, VA
- 2005- 2009 Bachelor of Science; Biology; Minor in Chemistry
Virginia Tech: Blacksburg, VA

Current State Medical Licenses: Alaska, Arizona, California, Kentucky, Maryland, Montana, New Mexico, Ohio, South Carolina

Clinical Experience

Sept - Dec 2023 St. Elias Specialty Hospital, Anchorage, AK: Physical Medicine and Rehabilitation, Staff Physician

- Invited to return as locum staff physician within an inpatient rehabilitation setting specialized in the comprehensive care of stroke, brain injury, disorders of consciousness, spinal cord, and amputee patients.
- Executed advanced Physical Medicine and Rehabilitation (PMR) strategies, collaborating seamlessly with interdisciplinary teams and diverse Native Alaskan population.
- Instrumental in developing and implementing individualized rehabilitation plans, contributing significantly to improved outcomes and elevated quality of life for diverse patient populations in remote Alaska.

April 2023 - Oct 2023 Encompass Health, Bakersfield, CA: Physical Medicine and Rehabilitation, Staff Physician

- Returning locum physician for acute inpatient unit specializing in diverse psychiatric conditions such as cerebrovascular accidents, brain injuries, spinal cord injuries, limb amputations, and neurological disorders.
- Pioneered weekly interdisciplinary team rounds with medical staff, fostering a collaborative environment to craft and fine-tune personalized rehabilitation plans.
- Proactively addressed multifaceted healthcare challenges specific to California and the homeless community, contributing significantly to the overall well-being and positive outcomes of patients undergoing rehabilitation.

Sept 2022 - May 2023 Robley Rex Department Of Veterans Affairs Medical Center, Louisville, KY: Fee for Service Physician

- Locum staff physician for outpatient physical medicine and rehab service: SCI and mTBI Clinics
- Provide specialized medical care and treatment to patients with spinal cord injuries (SCI).
 - Perform comprehensive evaluations of patients with SCI, including detailed medical history, physical examination, and diagnostic assessments.
 - Develop and implement individualized treatment plans for patients with SCI, considering their specific needs, goals, and level of injury.
- Provide comprehensive assessment and evaluation of mTBI patients at the VA Medical Center.

- o Develop and implement individualized treatment plans for mTBI patients based on their specific needs and goals, specializing in headache management.
- o Conduct thorough neurological examinations to identify and monitor symptoms, impairments, and progress.
- o Collaborate with interdisciplinary teams to ensure coordinated care for mTBI patients, including psychologists, physical therapists, occupational therapists, and speech-language pathologists.
- Procedural skills include: ultrasound guided small and large joint injections, spasticity management via botulinum toxin denervation and baclofen pump management, sphenopalatine ganglion nerve block, greater occipital nerve blocks, trigger point injections, osteopathic manual therapy.

Aug 2016- present Norton Healthcare, Louisville, KY: Immediate Care Center, Staff Physician, PRN

- Obtain detailed medical history of each patient including, but not limited to, the patient's chief complaint, his/her present condition, the patient's individual history and his/her family history
- Provide continuous availability for medical and technical questions to patients and staff
- Provide patient-centered, comprehensive primary care services consistent with the patient centered model that ensures both treatment and prevention of illness are addressed at each visit
- Excellent experience with occupational medicine visits, workers compensation cases, and musculoskeletal medicine needs using a holistic approach utilizing osteopathic manipulative medicine techniques when indicated

Oct-Nov 2022 Encompass Health Greenville, Greenville, SC: Physical Medicine and Rehabilitation, Medical Director

- Locum medical director for acute inpatient unit, received subsequent invitation to return and contribute to the facility's ongoing success
- Diagnose, manage and treat complex physiatric conditions such as cerebrovascular accidents, brain injuries, spinal cord injury, limb amputation, neurological disorders
- Led weekly interdisciplinary team rounds with medical staff to ensure patient has adequate rehabilitation plan
- Manage complex medical comorbidities in the setting of acute rehabilitation

Mar - Dec 2022 Aiken Regional Medical Center, Aiken, SC: Physical Medicine and Rehabilitation, Medical Director

- Locum medical director for acute inpatient unit, multiple repeat engagements
- Diagnose, manage and treat complex physiatric conditions such as cerebrovascular accidents, brain injuries, spinal cord injury, limb amputation, neurological disorders
- Led weekly interdisciplinary team rounds with medical staff to ensure patient has adequate rehabilitation plan
- Manage complex medical comorbidities in the setting of acute rehabilitation

June '21-March '22 Mansfield Hospital, Mansfield, OH: Physical Medicine and Rehabilitation, Medical Director

- Locum medical director for acute inpatient unit
- Diagnose, manage and treat complex physiatric conditions such as cerebrovascular accidents, brain injuries, spinal cord injury, limb amputation, neurological disorders
- Led weekly interdisciplinary team rounds with medical staff to ensure patient has adequate rehabilitation plan
- Manage complex medical comorbidities in the setting of acute rehabilitation

July 2021 Cardinal Health Rehabilitation Hospital, Lexington, KY: Physical Medicine and Rehabilitation, Medical Director

- Locum medical director for acute inpatient unit

- Diagnose, manage and treat complex psychiatric conditions such as cerebrovascular accidents, brain injuries, spinal cord injury, limb amputation, neurological disorders
- Led weekly interdisciplinary team rounds with medical staff to ensure patient has adequate rehabilitation plan
- Manage complex medical comorbidities in the setting of acute rehabilitation

June 2021 Lake Cumberland Regional Hospital, Somerset, KY: Physical Medicine and Rehabilitation, Medical Director

- Locum medical director for acute inpatient unit
- Diagnose, manage and treat complex psychiatric conditions such as cerebrovascular accidents, brain injuries, spinal cord injury, limb amputation, neurological disorders
- Led weekly interdisciplinary team rounds with medical staff to ensure patient has adequate rehabilitation plan

Research Experience

August 2011-July 2012 National Institute of Neurological Disorders and Stroke: Research Assistant, Suburban Hospital, Traumatic Brain Injury (TBI) Team

- Co-Investigator for *Evaluation, Pathogenesis, and Outcome of Subjects with or Suspected Traumatic Brain Injury* protocol
- Conducted research study investigating the use of gadolinium-enhanced MRI in human clinical trials for mild traumatic brain injury (mTBI).
- Designed and implemented protocols for the recruitment, screening, and enrollment of participants with mTBI in NIH-funded clinical trials.
- Collaborated with a multidisciplinary team of researchers, neurologists, radiologists, and statisticians to develop a comprehensive research methodology.
- Analyzed imaging data, including qualitative and quantitative assessments, to evaluate the effectiveness of gadolinium-enhanced MRI in detecting brain abnormalities associated with mTBI.
- Conducted statistical analyses and interpreted the findings to draw conclusions and contribute to the existing body of knowledge on mTBI diagnosis and management.
- Presented research findings at scientific conferences, symposiums, and workshops to disseminate knowledge and engage in scientific discussions with peers.
- Ensured compliance with ethical standards, regulatory guidelines, and patient privacy requirements throughout the research study.
- Maintained accurate and detailed documentation of the study, including data collection, participant records, and research protocols.
- Participated in daily neuroradiology rounds of TBI and stroke patients

August 2009-2011 National Institutes of Health: Postbaccalaureate Intramural Research Training Award (IRTA) Fellow, Interventional Radiology Research Lab

- Co-Investigator for *Pulsed-High Intensity Focused Ultrasound Mediated Delivery of Diagnostic and Therapeutic Agents in a Rabbit Squamous Cell Carcinoma Model* protocol
- Participated in preclinical and clinical procedures including trans arterial chemo embolizations (TACE) and high intensity focused ultrasound (HIFU) procedures
- Assisted with procedures for conducting safe and effective preclinical studies of Doxorubicin delivery using HIFU technology
- Co-Investigator for *Analysis of hypoxia, perfusion changes, and embolic location following transcatheter arterial embolization of VX2 hepatic tumors in rabbits* protocol
- Performed weekly ultrasound-assisted diagnostic procedures in an *in vivo* animal tumor model
- Ultrasound Assistant for UroNav MRI/Ultrasound fusion-assisted prostate biopsy clinical trial

- Assisted radiologists with diagnostic studies and protocols
- Responsible for regular department presentations, abstract and manuscript submissions
- Interfaced with Institutional Review Board

August 2008- 2009 Virginia-Maryland Regional College of Veterinary Medicine: Cytotoxicity Project Leader, Center for Comparative Oncology

- Analyzed effect of novel chemotherapy drugs in canine tumor cell lines using advanced luminometry and fluorometry techniques
- Trained in chemotherapy safe handling and clean up protocols

May-August 2008 The Johns Hopkins University School of Medicine: Data Curator and Student Intern, Health Science Informatics, Division of Oncology

- Conducted retrospective bioinformatics research on prostate cancer patients through the use of medical record archiving and data sourcing
- Assisted in pathological evaluation of human autopsy cases

May-September 2007 U. S. Food and Drug Administration: Operating Room Assistant and Project Leader, Laboratory of Cardiovascular and Interventional Therapeutics

- Evaluated utility and differences in bare metal cardiac stents as compared to drug-eluting devices in the healthy porcine model
- Assisted during preclinical animal surgical procedures involving CT-guided cardiac interventions
- Evaluated integrity of retrospective pre-clinical studies utilizing drug eluting vascular stents
- Extensive experience reviewing FDA submissions by manufacturers for biomedical devices

May-August 2006 Maryland Department of Agriculture: Serology Lab Technician, Animal Health Laboratory

- Performed assays (including Enzyme-Linked ImmunoSorbent Assay) of blood samples for diseases such as Brucellosis, Bovine Virus Diarrhea, and Equine Infectious Anemia
- Assisted in training Maryland Department of Agriculture veterinarians on foreign animal disease outbreak protocols
- Managed media preparation and culture samples using aseptic techniques
- Established standard operating procedures in accordance with Good Laboratory Practices (GLP)

September 2002-2005 U. S. Food and Drug Administration: Food Safety Researcher

- Co-Investigator of *Noninvasive Monitoring of Bacterial Growth in Whole Shell Eggs Using Magnetic Resonance Imaging* study
- Quantified and evaluated the effects of temperature-controlled cooling in whole chicken eggs using Magnetic Resonance Imaging
- Quantitative and qualitative MRI results of cooling and non-cooling samples were then compared to bacteria- inoculated eggs

Scientific Abstracts and Presentations

1. Genevieve C. Jacobs, Catherine Schuster, Camilo Castillo, Priya Chandan. A Quality Improvement Project to Address Self-Care in Spinal Cord Injury. American Academy of Physical Medicine and Rehabilitation Annual Assembly Oct 2018. Orlando, FL. Podium Speaker.
2. Genevieve C. Jacobs, Camilo Castillo, Priya Chandan. A Rare Case of Hemiplegia From Suspected Epstein-Barr Virus Myelitis: A Case Report. American Academy of Physical Medicine and Rehabilitation Annual Assembly Oct 2018. Orlando, FL
3. Lauren Chambers, Genevieve Jacobs, Elise McCallahan, Tobias Tsai. If At First You Don't Succeed, Try, Try Again: Initial Non-response to Zolpidem Followed by Paradoxical Arousal After Repeated Doses in a Pediatric Patient with Traumatic Brain Injury. Association of Academic Physiatrists Conference Feb 2016. Sacramento, CA. American Journal of Physical Medicine & Rehabilitation online.
4. Genevieve Jacobs, Mary Rucker, Jessica DeStefano, Martin R. Cota, Veronica Sudekum, Lawrence L. Latour. The influence of imaging findings on patient screening for the Traumatic Head Injury Neuroimaging Classification (THINC) study: an investigation of mTBI in a community hospital. National Neurotrauma Society Symposium Jul 2012. Scottsdale, AZ.
5. Mary J. Rucker, Genevieve Jacobs, Jessica L. DeStefano, Martin R. Cota, B, Lawrence L. Latour, Melissa Meyers, M, Veronica Sudekum. Data collected for research purposes provides support for clinical pathway for concussion screening in ED. National Neurotrauma Society Symposium Jul 2012. Scottsdale, AZ.
6. E. Levy, G. Jacobs, C. Gacchina, D.L. Woods, A. Ranjan, K.V. Sharma, J. Bacher, T. Thomas, A. Lewis, M. Dreher, B.J. Wood. Abstract 235: Oxygenation in hepatic VX2 tumors following transcatheter arterial embolization. *Journal of Vascular and Interventional Radiology* 03/2012; 23(3):S96-S97.
7. E. Levy, G. Jacobs, C. Gacchina, D. L. Woods, A. Ranjan K. V. Sharma, J. Bacher, T. Thomas, A. Lewis, M. Dreher, B. J. Wood. Oxygenation in hepatic Vx2 tumors following transcatheter arterial embolization Society of Interventional Radiology Mar 2012. San Francisco, CA.
8. L R Folio, J W Siegelman, A Mehari, G Jacobs, D Mollura, J J Caban, J Fontana. Spectrum of Pulmonary Fibrosis CT Findings in Sickle Cell Disease Using an Enhanced Visual Scoring System. Radiological Society of North America, Nov 2012. Chicago, IL.
9. DeStefano, Jessica L., Rucker, Mary J., Jacobs, Genevieve C., Cota, Martin R., Latour, Lawrence L. Missed diagnosis of concussion or TBI in mild head injury patients presenting to the emergency department Trauma Spectrum Conference, Dec 2011. Bethesda, MD.
10. Martin Cota, Jessica DeStefano, Mary Rucker, Genevieve Jacobs, Veronica Sudekem, Marcus Dean, Anita Moses, Joanna Shay, Katherine Williams, Lawrence Latour Changes in reported symptoms of subjects presenting in an acute clinical setting followed for 90 days. Trauma Spectrum Conference, Dec 2011. Bethesda, MD
11. Elliot Levy, Ashish Ranjan, Carmen Gacchina, Genevieve Jacobs, David Woods, Dave Tabriz, Matt Dreher, and Brad Wood. To determine the feasibility of fluorescence-based tissue oxygen measurements in an animal tumor model to characterize acute hypoxia as a consequence of arterial embolization. World Conference on Interventional Oncology, July 2011. Chicago, IL.

12. Alem Mehari, Xin Tian, Shoaib Alam, Les Folio, Jenifer Siegelman, Genevieve Jacobs, Daniel Mollura, Gregory J. Kato, Joseph Fontana. Pulmonary function in Adults with Sick Cell related Pulmonary Hypertension. American Thoracic Society Conference, May 2011. Denver, CO
13. Ari Partanen, Pavel S. Yarmolenko, Antti Viitala, Ashish Ranjan, Genevieve Jacobs, David Woods, Bradford J. Wood and Matthew R. Dreher. Mild hyperthermia using MR-guided high intensity focused ultrasound enhances targeted drug delivery of low temperature sensitive liposomes in a rabbit Vx2 tumor model. Society of Thermal Medicine Conference, Apr 2011. New Orleans, LA.
14. Ashish Ranjan, Genevieve Jacobs, David Woods, Ayele H. Negussie, Pavel S. Yarmolenko, Ari Partanen, Karun Sharma, Carmen Gacchina, Bradford J. Wood and Matthew R. Dreher Mild hyperthermia using MR-guided high intensity focused ultrasound enhances drug delivery of low temperature sensitive liposomes in a rabbit Vx2 tumor model. Society for Thermal Medicine Conference, Apr 2011. New Orleans, LA.
15. Pavel S. Yarmolenko, Ayele H. Negussie, Ari Partanen, Ashish Ranjan, Genevieve Jacobs, David Woods, Henry Bryant, David Thomasson, Mark W. Dewhirst, Bradford J. Wood and Matthew R. Dreher Dose painting with MR image-able low temperature sensitive liposomes and MR-guided high intensity focused ultrasound. Society of Thermal Medicine Conference, Apr 2011. New Orleans, LA.
16. Ari Partanen, Pavel S. Yarmolenko, Antti Viitala, Ashish Ranjan, Genevieve Jacobs, David Woods, Bradford J. Wood and Matthew R. Dreher. Feedback Control for Mild Hyperthermia Treatments Using Magnetic Resonance Guided High Intensity Focused Ultrasound for Solid Tumor Drug Delivery. International Society for Therapeutic Ultrasound, Apr 2011. New York, NY.
17. Ari Partanen, Pavel S. Yarmolenko, Antti Viitala, Ashish Ranjan, Genevieve Jacobs, David Woods, Bradford J. Wood and Matthew R. Dreher. Feedback Control for Mild Hyperthermia Treatments Using MR-HIFU. Focused Ultrasound Foundation Conference, July 2010. Chantilly, VA.
18. Genevieve Jacobs, Bradford J. Wood and Matthew R. Dreher. A Large Tumor Model of Hepatocellular Carcinoma. National Institutes of Health Annual Research Festival, July 2010. Bethesda, MD.
19. Jacobs, G., Johannessen, J. Noninvasive Monitoring of Bacterial Growth in Whole Shell Eggs Using Magnetic Resonance Imaging. Philippine Veterinary Medicine Society Annual Convention, Feb 2005. Manila, Philippines.
20. Jacobs, G., Johannessen, J. Noninvasive Monitoring of Bacterial Growth in Whole Shell Eggs Using Magnetic Resonance Imaging. Food and Drug Administration Annual Forum, 2003. White Oak, MD.

Publications

1. Levy EB, Gacchina Johnson C, Jacobs G, Woods DL, Sharma KV, Bacher JD, Lewis AL, Dreher MR, Wood BJ. Direct Quantification and Comparison of Intratumoral Hypoxia following Transcatheter Arterial Embolization of VX2 Liver Tumors with Different Diameter Microspheres. *J Vasc Interv Radiol*. 2015 Jul 28. pii: S1051-0443(15)00553-9. doi: 10.1016/j.jvir.2015.06.011. PMID: 26231108
2. Jacobs, G., Rodriguez, A. An unusual case of intussusception in an adult due to heterotopic pancreatic tissue: A case report. Submitted Jan 27, 2015 to *Surgical Endoscopy*{ID: SEND-15-0143}.
3. Gabriel Peterson, Binh Nguyen, Sung K. Pak, Genevieve Jacobs, Les Folio. Extreme Compression for Extreme Conditions: Pilot Study to Identify Optimal Compression of CT Images Using MPEG-4 Video Compression. *Journal of Digital Imaging*. June 2012. Volume 25, Number 6 (2012), 764-770, DOI: 10.1007/s10278-012-9500-8. PMID: PMC 3491159
4. Ari Partanen, Pavel S. Yarmolenko, Antti Viitala, Sunil Appanaboyina, Dieter Haemmerich, Ashish Ranjan, Genevieve Jacobs, David Woods, Julia Enholm, Bradford J. Wood, Matthew R. Dreher Mild hyperthermia with magnetic resonance-guided high-intensity focused ultrasound for applications in drug delivery. *International Journal of Hyperthermia*. 2012;28(4):320-36. doi: 10.3109/02656736.2012.680173. PMID: 22621734
5. Ashish Ranjan, Genevieve Jacobs, David L. Woods, Ayele H. Negussie, Ari Partanen, Pavel S. Yarmolenko, Carmen E. Gacchina, Karun V. Sharma, Victor Frenkel, Bradford J. Wood, Matthew R. Dreher, Image-guided drug delivery with magnetic resonance guided high intensity focused ultrasound and temperature sensitive liposomes in a rabbit Vx2 tumor model. *Journal of Controlled Release*, 2012 Mar 28;158(3):487-94. doi: 10.1016/j.jconrel.2011.12.011. Epub 2011 Dec 21. PMID: 22210162
6. Ayele H. Negussie, Pavel S. Yarmolenko, Ari Partanen, Ashish Ranjan, Genevieve Jacobs, David Woods, Henry Bryant, David Thomasson, Mark W. Dewhirst, Bradford J. Wood and Matthew R. Dreher. Formulation and characterization of MR image-able thermally sensitive liposomes for use with magnetic resonance guided high intensity focused ultrasound. *International Journal of Hyperthermia*. 2011;27(2):140-55. doi: 10.3109/02656736.2010.528140. PMID: 21314334

Grant Submissions

1. Optimizing Survivability from Blast via High Biofidelity Simulator Detonations. White Paper submitted on 5/23/11 to Army Research Laboratory and the Army Research Office Broad Agency Announcement for Basic and Applied Scientific Research. Les Folio; Genevieve Jacobs; et al

Editorial Contributions

1. Folio, L. Combat Radiology. Textbook. Springer Publishing, May 2011.

Professional Conferences

Oct 24-28, 2018	American Academy of Physical Medicine and Rehabilitation Annual Assembly, Orlando, Florida*+
February 13-17, 2018	Association of Academic Physiatrists, Atlanta, GA
October 1-4, 2015	American Academy of Physical Medicine and Rehabilitation Annual Assembly, Boston, MA
Jan 19, 2013	Anesthesia Workshop, SOSA, Roanoke, VA
July 22-25, 2012	National Neurotrauma Society Annual Meeting, Phoenix, AZ *
May 14-15, 2012	National Capital Area Traumatic Brain Injury Symposium/CNRM Annual Meeting, Bethesda, MD *

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December 8-9, 2011 Trauma Spectrum Conference, Bethesda, MD *
 June 9-12, 2011 World Conference on Interventional Oncology, New York, NY
 October 17-20, 2010 International MR-guided Focused Ultrasound Symposium, Chantilly, VA *
 April 28, 2010 Military Health Management Conference, Arlington, VA
***Poster Presented +Podium Speaker**

Service

2018 Special Olympics, MedFest, Volunteer Staff Physician, Louisville, KY
 2017 Special Olympics, MedFest, Volunteer Staff Physician, Lexington, KY
 2013 Medical Mission Volunteer, Student Doctor, San Salvador, El Salvador
 2010-present Volunteer Ambassador, National Bone Marrow Registry, Bethesda, MD
 2009-2011 Committee Leader, ICU Rounds Shadowing Program, NIH, Bethesda, MD
 2009-2011 Volunteer, NIH Children's Inn, Bethesda, MD
 2009-2010 Volunteer, Recordings for the Blind and Dyslexic, Bethesda, MD

Professional Affiliations

2008-present One Health Academy
 2014-present American Academy of Physical Medicine and Rehabilitation
 2018-2020 American Spinal Injury Association
 2018-2020 Program Advancement Committee, Founder and President
 2017-2020 Resident Quality and Safety Leadership Council
 2017-2020 AAPMR Physiatrists in Training Council, Secretary
 2015-2020 Association of Academic Physiatrists
 2015-2020 American Osteopathic College of Physical Medicine and Rehabilitation
 2012-2016 Student Osteopathic Medical Association, Virginia Chapter
 2012-2014 Osteopathic Manipulative Medicine Club