

# Karen Orjuela, M.D., MSCR.

12401 E 17<sup>th</sup> Avenue, MS L950  
Aurora, CO, 80045

Last updated: 12/27/2021

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## Education

Colorado immersion training in community engagement	July - 2021
M.S. in Clinical Research, Medical University of South Carolina.	2017-2019
Vascular Neurology Fellowship, Loyola University of Chicago, Maywood, IL.	2015-2016
Neurology Residency, Loyola University of Chicago, Maywood, IL.	2011-2015
Internship PGY1/Preliminary year/Internal Medicine	2011-2012
International Intern, University of Diderot, Hospital Bichat. Paris, France	2004-2005
M.D., National University, Bogota, Colombia	1999-2005

## Academic Appointments

<b>Assistant Professor</b> Department of Neurology University of Colorado Aurora, CO	2016-Present
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<b>Co-Director Diversity Equity and Inclusion</b> Department of Neurology University of Colorado Aurora, CO	2021-Present
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<b>Program Director</b> Neurohospitalist Fellowship Department of Neurology University of Colorado Aurora, CO	2021-Present
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<b>Associate Program Director</b> Neurohospitalist Fellowship Department of Neurology University of Colorado Aurora, CO	2017-2020
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## Honors and Awards

Emerging Leaders Program. Scholarship. American Academy of Neurology	2019-2020
5280 Denver's Magazine. Top Doctors. Vascular Neurology	2019
Faculty Resident Teaching Award. Excellence in resident teaching	2019
Faculty Student Teaching Award. Excellence in student teaching	2018
TRANSCENDS Scholar. American Academy of Neurology-National Institute of Health	2017-2019
Fellow Scholarship to the Annual Meeting. American Academy of Neurology	2016
Resident Scholarship to the Annual Meeting. American Academy of Neurology	2015
Nominee to "Stritch School of Medicine M2 Resident of the year"	2015

### **Memberships in Profession Organizations**

American Neurological Association, Member	2019 - Present
Neurohospitalist Society, Member	2018 - Present
American Heart Association, Member	2011 - Present
American Academy of Neurology, Member	2011 - Present

### **Major Committee and Service Responsibilities**

Neurohospitalist Section Chair American Academy of Neurology	2021 - 2023
Member - Research Subcommittee American Academy of Neurology	2021 - 2023
Topic (Stroke) Chair American Academy of Neurology's Annual Meeting	2020- Present
Topic Editor/Champion NeuroBytes American Academy of Neurology	2020 - 2021
Stroke Council Early Career Committee Member American Heart Association	2020 - Present
Vestido Rojo (Go Red) Denver Committee Board Member American Heart Association	2020 - Present
Neurohospitalist Society Board Member	2018 - Present
CureCADASIL Society Scientific Advisory Board Member	2018 - Present
Child Neurology Residency Clinical Competency Committee Member University of Colorado School of Medicine, Department of Neurology	2018 - Present
Stroke Council Member University of Colorado – Anschutz Medical Center	2018 - Present
Neurology Residency Clinical Competency Committee Member University of Colorado School of Medicine, Department of Neurology	2017 - Present
Neurology Residency Selection Committee Member University of Colorado School of Medicine, Department of Neurology	2017 - Present

### **Licensure and Board Certification**

State of Wyoming Medical License	2018 - Present
Diplomat, American Board of Psychiatry and Neurology, Vascular Neurology	2018 - Present

Diplomat, American Board of Psychiatry and Neurology 2017 - Present  
State of Colorado Medical License 2016 - Present

### **Review and Referee Work**

Stroke Journal, ad hoc reviewer 2020 - Present  
The Neurohospitalist, Editorial Board Member 2019 - Present  
Journal of Stroke and Cerebrovascular Diseases, ad hoc reviewer 2019 - Present  
Journal of eNeurological Sciences. Associated Editor 2018 - Present  
The Neurohospitalist, ad hoc reviewer 2018 - Present  
International Stroke Conference, ad hoc reviewer 2017 - 2021  
University of Colorado Neurology Research Retreat, resident research award judge 2017/2019

### **Invited extramural lectures, presentations and visiting professorships**

#### **Local**

**Karen Orjuela.** Determinants of Incident Stroke Cognitive Outcomes and Vascular Effects on Recovery. (DISCOVERY) trial. Department of Neurosurgery Grand Rounds. University of Colorado, August 17<sup>th</sup>, 2021

**Karen Orjuela.** Using the lens of Covid-19 to address equity in hospital neurology. Department of Neurology Grand Rounds. University of Colorado. July 22<sup>nd</sup>, 2020.

**Karen Orjuela.** Neurological Examination, what this still matters in a neuroimaging era? General Internal Medicine Grand Rounds. University of Colorado. March 5<sup>th</sup>, 2019.

**Karen Orjuela.** "Time is brain, but time is relative". Update in the management of acute ischemic stroke. Department of General Internal Medicine Grand Rounds. University of Colorado. October 16<sup>th</sup>, 2018

**Karen Orjuela.** Megan Barry, Michelle Leppert, John Carroll. "Quit Playing Games with My Heart: Patent Foramen Ovale Closure and Cryptogenic Stroke." Department of Neurology Grand Rounds. University of Colorado. February 14<sup>th</sup>, 2018.

#### **National**

**Karen Orjuela,** Creating an Equitable Future in Cardiovascular Medicine, American Heart Association (AHA) 2021 Sessions. November 14<sup>th</sup>, 2021

**Karen Orjuela.** Restructuring neurological inpatient teams. Neurohospitalist Society 2021 Annual Meeting. October 2<sup>nd</sup> 2021

**Karen Orjuela.** Updates in acute stroke therapies. Illinois State Neurological Society Meeting. September 18<sup>th</sup> 2021

**Karen Orjuela.** Hospital Neurology and Neurohospitalist Fellowship education. Department of Neurology Grand Rounds. Duke University. September 8<sup>th</sup> 2021

**Karen Orjuela.** Brain and Heart Clinic. University of Missouri. Columbia.MO. August 26<sup>th</sup>, 2021

**Karen Orjuela.** Neurohospitalist Fellow Education Conference Webinar. Quarterly Conference. 2018-Present

**Karen Orjuela.** Using the lens of Covid-19 to address equity in hospital neurology. Neurology Grand Rounds. University of Colorado. Department of Neurology Grand Rounds. Medical University of South Carolina. November 19<sup>th</sup>, 2020

**Karen Orjuela.** Using the lens of Covid-19 to address equity in hospital neurology. Neurology Grand Rounds. University of Colorado. Department of Neurology Grand Rounds. University of Florida (Gainesville). August 18<sup>th</sup>, 2020

**Karen Orjuela.** Patent Foramen Ovale Closure and Cryptogenic Stroke. American Academy of Neurology. Los Angeles. April 27<sup>th</sup>, 2018.

### **International**

**Karen Orjuela.** Evaluación Multidisciplinaria para el estudio del paciente con F.O.P. Simposio Internacional de Cardiología. Bogotá Colombia (Virtual). September 25<sup>th</sup>, 2020.

**Karen Orjuela.** Controversia. Cierre del Foramen Oval Permeable en el Accidente Cerebrovascular Agudo. XXIV Congreso Internacional de Actualización en Cardiología. Barranquilla. Colombia. February 22<sup>nd</sup>, 2019.

**Karen Orjuela.** Trombolisis y trombectomia en pacientes en tratamiento con anticoagulación. XXIV Congreso Internacional de Actualización en Cardiología. Barranquilla. Colombia. February 22<sup>nd</sup>, 2019.

## **Teaching Record**

### **Teaching**

Lecturer, Vascular Neurology Fellow Didactics	2016 - Present
Lecturer, Neurohospitalist Fellow Didactics	2016 - Present
Lecturer, Stroke/ Neurological Emergencies Block	2016 - Present
Lecturer, Nervous System Hybrid Block, 2 <sup>nd</sup> year Medical Students	2019 - Present
Clinical Education of Medical Students, Residents and Fellows	2016 - Present

### **Mentoring**

Jarrett Leech, Neurohospitalist fellow, career counseling	2021 - Present
Arminius Caldwell, Neurology resident, career counseling	2021 - Present
Ashley Madera, Neurology resident, career counseling, research study design	2021 - Present
Luke Kim, Medical student, research study design	2020 - Present
Rebecca Pollard, Stroke fellow, career counseling, research study design	2020 - 2021
Igor Malenky, Neurology resident, research study design and publication	2019 - 2021
Kelsey Eklund, Neurology resident, research, career counseling	2019 - Present
Rebecca Pollard, Neurology resident, research study design and publication	2019 - 2020
Brian Sauer, Neurohospitalist fellow, career counseling	2019 - 2020
Brandon Pope, Neurohospitalist fellow, career counseling	2018 - 2019
Gary Walker, Stroke fellow, career counseling, research study design	2017 - 2019
Megan Barry, Stroke fellow, career counseling, research study design	2017 - 2018
Cameron Ludt, Stroke fellow, career counseling	2016 - 2017

## **Grants Support**

### **Site Principal Investigator**

2020 - Present

Determinants of Incident Stroke Cognitive Outcomes and Vascular Effects on Recovery (DISCOVERY)

Sponsor (National Institute of Neurological Disorders and Stroke/National Institute on Aging)

To investigate about the causes of post-stroke cognitive impairment and dementia  
University of Colorado School of Medicine, Department of Neurology

**Site Principal Investigator**

2018 - Present

Amplatzer-PFO Post-Approval Study  
Sponsor (St. Jude/Abbott)

To examine long term effects of PFO-closure in patients with cryptogenic stroke  
University of Colorado School of Medicine, Department of Neurology

**Site Principal Investigator**

2017 - 2018

A prospective multi-center study comparing the performance of the Dysphagia Detection System (DDS) in detecting impaired swallowing safety and efficiency as compared to the clinical reference method - videofluoroscopic swallowing study (VFSS)

Nestle Research Center

University of Colorado School of Medicine, Department of Neurology

**Co-Investigator**

2019 - Present

Phase 3 Study to Evaluate the Efficacy and Safety of Intravenous BIIB093 (Glibenclamide) for Severe Cerebral Edema Following Large Hemispheric Infarction (CHARM)

To determine if BIIB093 improves functional outcome at 90 days in patients with large hemispheric infarctions

University of Colorado School of Medicine, Department of Neurology

**Co-Investigator**

2018 - 2020

Study of Allogeneic Umbilical Cord Blood Infusion for Adults With Ischemic Stroke (CoBIS 2)

To determine the efficacy of a single intravenous infusion of unrelated donor umbilical cord blood (UCB) for improving functional outcomes in patients with ischemic stroke

University of Colorado School of Medicine, Department of Neurology

**Co-Investigator**

2017 – 2021

BEnefits of Stroke Treatment Delivered Using a Mobile Stroke Unit (BEST-MSU)

Trial comparing pre-hospital diagnosis and treatment of patients with stroke symptoms using a Mobile Stroke Unit (MSU) with subsequent transfer to a Comprehensive Stroke Center (CSC) Emergency

Department (ED) for further management

University of Colorado School of Medicine, Department of Neurology

## Bibliography

### Peer Reviewed Publications

Graham E, **Orjuela K**, Poisson S, Biller J. Treatment challenges in idiopathic extracranial ICA vasospasm case report and review of the literature. *eNeurologicalSci*. 2020 Dec 6;22:100304.

Warrior L, Kim CY, Burdick DJ, Ackerman DJ, Bartolini L, Cagniard KR, Dangayach NS, Dawson ET, **Orjuela KD**, Perue GL, Cutsforth-Gregory JK. Leading with inclusion during the COVID-19 pandemic: Stronger together. *Neurology*. 2020 Aug 11.

Kammeyer, R. M., & **Orjuela, K. D.** (2020). Rapidly Progressive Dementia and Temporal Lobe Atrophy in a Case of Nonketotic Hyperglycemic Hemichorea. *The Neurohospitalist*, 10(3), 229–233.

Ralston MS, Murray MB, Vela-Duarte D, **Orjuela KD**, Pastula DM. Neuroterrorism Preparedness for the Neurohospitalist. *The Neurohospitalist*. 2019 Jul;9(3):151-159

Leppert M, Poisson SN, Carroll JD, Thaler DE, Kim CH, **Orjuela KD**, Ho PM, Burke JF, Campbell JD. Cost-Effectiveness of Patent Foramen Ovale Closure Versus Medical Therapy for Secondary Stroke Prevention. *Stroke*. 2018 Jun;49(6):1443-50

**Orjuela K**, Gomes C. Stroke Syndromes and their anatomic localization. In: Levine S, editor-in-chief. MedLink Neurology. San Diego: MedLink Corporation. Available at [www.medlink.com](http://www.medlink.com). Last updated: [April 27, 2017]

Cumbler E, Patil, T, **Orjuela K**, Dietsche C, Ecker D, Anstett T. In the Literature: Physician Reviews of Hospital Medicine-Centric Research. The Hospitalist. 2017; Vol 21 (4): 17-19

Mora G, Agudelo J, Molina D, Garces M, Caminos J, **Orjuela K**, Allegue C, Gil R, Carracedo A, Brion M. Study of a Colombian Family with Hypertrophic Cardiomyopathy and Sudden Cardiac Death Associated with the Lys247arg Mutation in the Cardiac Troponin T (Tnnt2) Gene: Casual Relationship or Polymorphism?. Journal of Molecular and Genetic Medicine. 2014 June (8):2

**Orjuela K**, Amador C, Patarroyo M.A. Synthetic genes: a tool for identifying human papillomavirus (HPV) genotypes by hybridization and polymerase-chain-reaction based assays. Diagnostic Microbiology and Infectious Diseases. 2007 Sep;59(1):101-104.

Abboud H, Berroir S, Labreuche J, **Orjuela K**, Amarenco P, GENIC Investigators. Insular involvement in brain infarction increases risk for cardiac arrhythmia and death. Annals of Neurology. 2006 Apr;59(4):691-9

### **Book Chapters and Reviews:**

**Orjuela K**, Wang M, CADASIL. Rare Disease Database. National Organization for Rare Disorders (NORD) 2019. <https://rarediseases.org/rare-diseases/cadasil/>

**Orjuela K**. CADASIL: The Migraine – Stroke – Dementia Connection. Supplement to Neurology Reviews. March, 2018.

**Orjuela K**, Ruland S. Hypertensive Encephalopathy, Eclampsia and Posterior Reversible Encephalopathy Syndrome. Hypertension in stroke. 2016. Springer Editorial.

Schneck M, **Orjuela K**, Rubinos C. Stroke. The Hospital Neurology Book. 2016. McGrawHill Editorial.

### **Posters and Abstracts**

Pollard R, Sillau S, Malenky I, Eklund K, Leppert MH, Michael S, **Orjuela KD**. Abstract P127: Non-English Speakers and English Speakers Score Differently on Individual Components of the National Institutes of Health Stroke Scale. Stroke. 2021 Mar;52(Suppl\_1):AP127-.

Pollard R, Eklund K, Malenky I, Leppert M, Michael S, **Orjuela K**. Non-English Speakers and English Speakers Score Differently on Individual Components of the National Institutes of Health Stroke Scale (28). American Academy of Neurology, 73<sup>rd</sup> Annual Meeting, Virtual Conference.

Malenky, I; Pollard, R; Eklund, K; Sillau, S; Leppert, M; Michael, S; **Orjuela K**. Language barrier effects on initial stroke-symptoms recognition in the emergency department at the University of Colorado Hospital. European Stroke Organization and World Stroke Organization Conference. November 7-9<sup>th</sup> 2020.

**Orjuela K**, Lekubou A, Kinfe B, Obviagele B. Effect of Race on Rates of Patent Foramen Ovale Closure during Acute ischemic Stroke Hospitalization in the United States, International Stroke Conference. Honolulu, HI. February 2019.

**Orjuela K**, Lekubou A, Kinfe B, Obviagele B. Effect of Race on Rates of Hemicraniectomy during Acute Ischemic Stroke Hospitalization in the United States. International Stroke Conference. Honolulu, HI, February 2019.

**Orjuela K**, Simpson J, Poisson S, Jones W, Leppert M, Vela-Duarte D, Johnson P, Faust J, Morgan M, Gama K, Wiktor D, Carroll J. The University of Colorado Patent Foramen Ovale Clinic Experience. Six years of neurology and cardiology teamwork. Heart and Brain Symposium. Chicago, IL. June 2018.

**Orjuela K**, Sedhom W, Walker G, Hokosawa P, Roark C. Is stroke etiology a predictor of successful recanalization status in acute endovascular therapy? European Stroke Organization Conference. Gothenburg, Sweden. May 2018.

**Orjuela K**, Sweis R, Biller J. Amphetamines use in adults with ADHD and embolic strokes of undetermined source; a casual or causal relationship. American Neurology Association, 141<sup>st</sup> Annual Meeting, Baltimore, US, October 2016

**Orjuela K**, McGinley M, Sweis R, Prabhu V, Bakhos M, Biller J. Diagnostic and Management Challenges in patients with left atrial myxoma. American Academy of Neurology, 68<sup>th</sup> Annual meeting, Vancouver, Canada, April 2016

**Orjuela K**, Biller J. Detection of the JAK2-V617F mutation in a patient with unexplained strokes, clinical clues to go beyond the conventional "hypercoagulable panel". XXII World Congress of neurology. Santiago, Chile, October-November 2015.

**Orjuela K**, Ortiz J, Kliethermes S, Donahey EE, Bernier T, Sweiss R, Byron KL, Biller J. The Use of celecoxib in patients with aneurysmal subarachnoid hemorrhage (CASH) to prevent vasospasm and cerebral infarction. 2015 Chicago Research Network Symposium. American Heart Association. Chicago, September 2015

**Orjuela K**, Gill R, Vlahovic L, Morales-Vidal S, Right Hemispheric Acute Ischemic Stroke Secondary To Right Common Carotid Artery Free Floating Thrombus Due To Hypercoagulable State In An Otherwise Healthy 48-Year-Old Woman. American Academy of Neurology, 66<sup>th</sup> Annual meeting, Philadelphia, USA, April 2014

**Orjuela K**, Patil V, Duster Abuse: A recurrent spell. American Epilepsy Society. 67<sup>th</sup> Annual Meeting. Washington, DC. December 2013.

Rao V, Rangarajan V, **Orjuela K**, Dunning L, Schulwolf E. Not just another "rule out MI". Society of General Internal Medicine. 35<sup>th</sup> Annual Meeting. Orlando, FL. May, 2012

**Orjuela K**, Morales-Vidal S, Vazquez do Campo R, Biller J, Carotid artery dissections, fibromuscular dysplasia and familial long QT syndrome. A unique association, therapeutic challenges. Controversies in Neurology, Barcelona, Spain. October 2010.

**Orjuela K**, Hu X, Hao Q, Borgstrom N, Alger J, Salamon N, Villablanca P, Ali L, Obviagele B, Kim D, Starkman S, Saver J, Liebeskind D. Heart Rate Variability Changes Occur with MCA Stroke, Related to the Extent of Insular Ischemia. American Academy of Neurology, 62<sup>nd</sup> Annual meeting, Toronto, Canada, April 2010

Simon O, Labreuche J, **Orjuela K**, Amarenco P. Effect of Recent Transient Ischemic Attack on Brain Tolerance: A retrospective Study Based on GENIC Cohort. American Academy of Neurology, 58<sup>th</sup> Annual meeting, San Diego, California, April 2006

### **Oral Presentations**

**Karen Orjuela**, Creating an Equitable Future in Cardiovascular Medicine, American Heart Association (AHA) 2021 Sessions. November 14<sup>th</sup>, 2021

**Karen Orjuela.** Restructuring neurological inpatient teams. Neurohospitalist Society 2021 Annual Meeting. October 2nd 2021

**Karen Orjuela.** Updates in acute stroke therapies. Illinois State Neurological Society Meeting. September 18th 2021

**Karen Orjuela.** Brain and Heart Clinic. University of Missouri. Columbia, MO. August 26<sup>th</sup> , 2021

**Karen Orjuela.** Evaluación Multidisciplinaria para el estudio del paciente con F.O.P. Simposio Internacional de Cardiología. Bogotá Colombia (Virtual). September 25<sup>th</sup>, 2020.

**Karen Orjuela.** Controversia. Cierre del Foramen Oval Permeable en el Accidente Cerebrovascular Agudo. XXIV Congreso Internacional de Actualización en Cardiología. Barranquilla. Colombia. February 22<sup>nd</sup>, 2019.

**Karen Orjuela.** Trombolisis y trombectomia en pacientes en tratamiento con anticoagulación. XXIV Congreso Internacional de Actualización en Cardiología. Barranquilla. Colombia. February 22<sup>nd</sup>, 2019.

**Karen Orjuela.** Patent Foramen Ovale Closure and Cryptogenic Stroke. American Academy of Neurology. Los Angeles. April 27<sup>th</sup>, 2018.