



College of Health Affairs
Health & Biomedical Sciences

Mailing address: University of Texas at Brownsville
College of Biomedical Sciences
80 Fort Brown
Brownsville TX 78520

Phone: 956 882 4181

Email: maria.castaneda@utrgv.edu

Maria Teresa Castañeda Licón

Curriculum Vitae

EDUCATION

| | |
|-----------|---|
| 1978-1984 | M.D. Facultad de Medicina de Matamoros. Universidad Autónoma de Tamaulipas. México. |
| 1985-1986 | Graduated studies Master of Sciences specialty in Physiology. Facultad de Medicina. Universidad Autónoma de Nuevo León. México. |
| 1986-1987 | Graduated Studies in College Education Teaching.. Facultad de Medicina Universidad Autónoma de Tamaulipas México. |
| 1996-1998 | Master in Académic Communication. Unidad Academica de Ciencias de la salud y Tecnologia Universidad Autonoma de Tamaulipas. |
| 2008-2009 | Polysomnography Diploma. University of Texas at Brownsville. |
| 2004-2009 | Ph.D student in Universidad Autónoma de Tamaulipas. Universidad de Granada España. |
| 2009 | Ph D. University of Granada Spain |

ACADEMIC EXPERIENCE

- 1983-1985 Instructor of Pediatrics in Facultad de Medicina.
Universidad Autónoma de Tamaulipas. Mexico
- 1985-1986 Associated Professor of Physiology in Facultad de Medicina.
Universidad Autonoma de Nuevo Leon. Mexico.
- 1986-1988 Associated Professor of Physiology in Facultad de Medicina
Universidad Autonoma de Tamaulipas. Mexico.
- 1988-2013 Physiology Professor in Facultad de Medicina
Universidad Autonoma de Tamaulipas.Mexico.
- 1988-2003 Visiting Professor in Biology department in University of Texas At
Brownsville.
- 2005-2014 Assistant Research Professor.Biomedical Sciences Department. University
of Texas at Brownsville.
- 2015 Full Time Lecturer Biomedical Science Department.

CLINICAL EXPERIENCE

- 1987-2005 Family Physician at private Office. (Matamoros Tamaulipas,México)

RESEARCH EXPERIENCE

- 1997-1998 Increase education with use of technologies.
Distance Education. Universidad Autonoma de Tamaulipas Mexico.
- 1998-1999 Self motivation and learning. Universidad Autonoma de Tamaulipas.
Mexico.
- 2001-2003 Glutamic acid decarboxylase isoform are differentially distributed in the
septal region of the rat.
- 2005-2006 Characterization of medial septal glutamatergic neurons and their projection
to the hippocampus.
Septo-hippocampal networks in chronically epileptic rats: potential
antiepileptic effects of theta rhythm generation
- 2007 Septal GABAergic neurons are selectively vulnerable to pilocarpine-induced
Status Epilepticus and Chronic spontaneous Seizures
- Electrophysiological and morphological heterogeneity of slow firing neurons
in medial septal/diagonal band complex as revealed by cluster analysis

- 2008 Medial Septal beta-amyloid 1-40 injections alter septohippocampal anatomy and function.
Colom L.V.,Castañeda M.T, Bañuelos C.,Puras G.,Garcia-Hernandez A.,Hernandez S., Mounsey S., Benavides J.,Lehcker C.Brownsville Texas. Neurobiology of Aging (2008)
- 2009 Intrahippocampal amyloid- β (1-40) injections injure cholinergic septal neurons",
- 2011-2012 Memantine protects cholinergic and glutamatergic septal neurons from A β ₁₋₄₀-induced toxicity.
- 2013-2014 Potassium Channels Kv7.2 and Kv7.3 in Medial Neuronal Septal Group. NpAs4 changes in Epileptic Rats, and Transgenic Mice.

PUBLICATIONS

Full Papers

- 2005 Glutamic acid decarboxylase isoform are differentially distributed in the septal region of the rat. Maria T. Castaneda, Emilio R. Garrido Sanabria, Sofia Hernandez, Adriana Ayala, Tania A. Reyna, Jan-Yen Wu, Luis V. Colom. Department of Biology.The University of Texas at Brownsville. Neurosci Res. 2005 May; 52(1):107-19.
- Characterization of medial septal glutamatergic neurons and their projection to the hippocampus. Colom L.V., Castañeda M.T., Reyna T. and Hernandez S. The Center for Biomedical Studies and Biology Department at the University of Texas at Brownsville Texas Southmost College, 80 Fort Brown, Brownsville, Texas 78520 USA (Synapse. June 2005)
- 2006 Septo-hippocampal networks in chronically epileptic rats: potential antiepileptic effects of theta rhythm generationLuis V. Colom*, Antonio García-Hernández, Maria T. Castañeda, Miriam G. Perez-Cordova, Emilio R. Garrido-Sanabria. Department of Biological Sciences and Center for Biomedical Studies.The University of Texas at Brownsville/Texas Southmost College (J.Neurophysiolgy.March 2006)
- Septal GABAergic neurons are selectively vulnerable to pilocarpine-induced Status Epilepticus and Chronic spontaneous Seizures. Emilio R. Garrido Sanabria, Maria T. Castañeda, Cristina Banuelos, Miriam G. Perez, Sofia Hernandez and Luis V. Colom. Department of Biological Sciences at the University of Texas at Brownsville/Texas (Neuroscience 2006).
- 2007 Electrophysiological and morphological heterogeneity of slow firing neurons in medial septal/diagonal band complex as revealed by cluster analysis.
E. R. Garrido-Sanabria, M. G. Perez, C. Banuelos, T. Reyna, S. Hernandez, M. T. Castaneda, L. V. Colom
Department of Biological Sciences, The University of Texas at Brownsville/
Texas Southmost College, Center for Biomedical Studies, Brownsville,
Texas 78520.(Neuroscience 2007)

- 2010 Medial septal beta-amyloid 1-40 injections alter septo-hippocampal anatomy and function.
Colom LV, Castañeda MT, Bañuelos C, Puras G, García-Hernández A, Hernandez S, Mounsey S, Benavidez J, Lehker C.
Neurobiol Aging. 2010 Jan;31(1):46-57. Epub 2008 Jun 10.
- 2011 Intrahippocampal Amyloid- β (1-40) Injections Injure Medial Septal Neurons in Rats.Colom LV, Castaneda MT, Hernandez S, Perry G, Jaime S, Touhami A.Curr Alzheimer Res. Curr Alzheimer Res. 2011 Dec;8(8):832-40
- 2013 Memantine protects cholinergic and glutamatergic septal neurons from A β ₁₋₄₀-induced toxicity. Colom L.V.^{1,2*}, Castaneda M.T.^{1,4}, Aleman D.¹, Touhami A.³. ¹Center for Biomedical Research, ²Department of Biomedicine, ³Physics Department, the University of Texas at Brownsville, 80 Fort Brown, Brownsville, TX 78520, USA, ⁴ Universidad Autónoma de Tamaulipas, Tamaulipas, Mexico. Submitted to Neurosciences Letters. 2013 Feb 28. pii: S0304-3940(13)00120-1.
- 2014 The transcription factor Neuronal PAS protein domain-4 (NPAS4) is early and strongly modulated by seizures in the rat pilocarpine model of temporal lobe epilepsy.Pacheco-Otalora LF¹, Durán-González J¹, Antonio LL¹, Castaneda MT^{1,4}, Rosas G¹, Carreon NN¹, Castro C¹, Rodríguez JM¹, Martínez JC¹, Garrido-Sanabria ER^{1,2}, Colom LV^{1,2*}¹Center for Biomedical Studies, The University of Texas at Brownsville, 80 Fort Brown, Brownsville, TX 78520, USA.²Department of Biomedicine, The University of Texas at Brownsville, 80 Fort Brown, Brownsville, TX 78520, USA .⁴Facultad de Medicina e Ingeniería en Sistemas Computacionales, de la Universidad Autónoma de Tamaulipas. Sent for revisión Brain Research.
- Distribution of KCNQ2 and KCNQ3 subunits in the rat media Iseptum
L. V. Colom †, M. T. Castaneda, E. D. Lopez, M. D. De Leon, D. Aleman, Rodriguez J.M, Perez, O. Center for Biomedical Studies at the University of Texas at Brownsville, 80 Fort Brown, Brownsville, TX78520, USA. Facultad de Medicina e Ingeniería en Sistemas Computacionales, Universidad Autónoma de Tamaulipas. Sent to review.Neurosciences Letters/
- 2015 Razonamiento Clinico Ciclo Basico Opcion Integracion ...
biblioteca.universia.net/html_bura/ficha/params/title/razonamiento...
Autor(es): Castañeda Licón, María Teresa - Rodríguez Uribe, Hugo Esteban - ... [IsBasedOn] Edumecentro, ISSN 2077-2874, Vol. 7, Nº. 1, 2015, pags. 18-30
- Neuroprotection of Medial Septal Cholinergic Neurons by Memantine after Intralateral Septal Injection of A β ₁₋₄₀.María T.Castaneda,Erick Lopez,Ahmed Tohuami,Ramiro Tovar,Miriam Ortega.University of Texas at Brownsville. Accepted for Publication in Neuroreport.February,2015

La diabetes y la alimentación determinantes en la progresión de aterosclerosis. Diabetes and type of diet as determinant factor in the progression of atherosclerosis." Authors **La diabetes y la alimentación determinantes en la progresión de aterosclerosis**
Adriana Leticia Perales-Torresa, Octelina Castillo-Ruíza,*,
María Teresa Castañeda Licónb, Sanjuana E. Alemán-Castillo
y Juan Miguel Jiménez Andradec a Departamento de Nutrición y Alimentos, Universidad Autónoma de Tamaulipas, Reynosa, Tamaulipas, México b Departamento de Farmacología, Universidad Autónoma de Tamaulipas, Matamoros, Tamaulipas, México c Departamento de Farmacología, Universidad Autónoma de Tamaulipas, Reynosa, Tamaulipas, México. Article in Press. ARCHIVOS DE CARDIOLOGIA iol Mex. 2015. <http://dx.doi.org/10.1016/j.acmx.2015.12.003>

ABSTRACTS

2003

Glutamate-immunoreactive neurons from the septal region project to hippocampus. L.V. Colom, M.T. Castañeda, S. Hernandez, and T. Reyna Biology Department, University of Texas at Brownsville, Brownsville, TX 78520.

Distribution of glutamic acid decarboxylase (GAD) 65 and 67 in the septal region of the rat. M.T. Castaneda, A.Ayala, J.Y.Wu and L.V.Colom. Biology Department, University of Texas at Brownsville, Brownsville, Texas 78520.

2004

Electrophysiological variability of septum/diagonal band neurons. M.T. Castaneda, E.R. Garrido-Sanabria, T.A. Reyna, S. Hernandez, L.V. Colom. Biology Department, University of Texas at Brownsville, 80 Fort Brown, Brownsville TX 78520.

Morphological variability of electrophysiologically-identified medial septum/diagonal band neurons. T.A. Reyna, E.R. Garrido-Sanabria, M.G.Perez, M.T. Castaneda, S. Hernandez, L.V. Colom, Biology Department University of Texas at Brownsville, 80 Fort Brown, Brownsville TX 78520.

Electrophysiological variability of septum/diagonal band neurons. M.T. Castaneda, E.R. Garrido-Sanabria, T. Reyna, S. Hernandez, L.V. Colom. Department of Biological Sciences, University of Texas at Brownsville, 80 Fort Brown, Brownsville TX 78520.

Distinct voltage-gated K⁺ channels underlie physiologically diverse firing patterns in medial septum and diagonal band neurons. M.G. Perez, E.R. Garrido-Sanabria, T. A. Reyna, M.T. Castaneda, S. Hernandez, L.V. Colom. Biology Department, University of Texas at Brownsville, 80 Fort Brown, Brownsville, TX 78520.

2005

Co-localization of VGLUT2 and Parvalbumin in medial septal neurons L.V. Colom, M.T. Castaneda, S. Hernandez. Biology Department, University of Texas at Brownsville, 80 Fort Brown, Brownsville TX 78520.

Septal GABAergic neurons are selectively vulnerable to pilocarpine-induced hippocampal seizures. L.V. Colom, M.T. Castaneda, C. Bañuelos, S. Hernandez., M. G. Perez, J. Couoh, E. R. Garrido. Biology Department, University of Texas at Brownsville, 80 Fort Brown, Brownsville TX 78520.

Electrophysiological heterogeneity of firing properties of neurons in medial septum and Band of Broca Areas. Emilio R. Garrido-Sanabria, Miriam G. Perez, Tania Reyna, Maria Teresa Castaneda, Sofia Hernandez, Tania Reyna, Luis V. Colom.

Co-localization of VGLUT2 and Parvalbumin in medial septal neurons L.V. Colom, M.T. Castaneda, S. Hernandez. Biology Department, University of Texas at Brownsville, 80 Fort Brown, Brownsville TX 78520.

2006

Amyloid- β -peptide 1-40 injures cholinergic and glutamatergic neurons in the septal region of the rat.

M.T. Castañeda, S. Hernandez, C. Bañuelos, L.V. Colom. Biology Department, University of Texas at Brownsville, 80 Fort Brown, Brownsville TX 78520.

Glutamatergic septal axons innervate both principal and GABAergic hippocampal neurons.

S. Hernandez, M.T. Castañeda, L.V. Colom. Biology Department, University of Texas at Brownsville, 80 Fort Brown, Brownsville TX 78520.

2007

Septo-hippocampal anatomy and function are altered by injections of β -amyloid 1-40 into the septal region. Castaneda M.T.; Colom L.V.; Bañuelos, C; Hernandez, S.; Garcia J.A.. University of Texas at brownsville, 80 Fort Brown, Brownsville TX 78521

2008

Innervation of hippocampal principal cells and interneurons by medial septal glutamatergic neurons. L.V. Colom, S. Hernandez, C. Banielos, M.T. Castaneda. Biology Department, University of Texas at Brownsville, 80 Fort Brown, Brownsville TX 78520.

Sociedad Mexicana de Anatomia..

Inervacion de las celulas principales hippocampicas, por neuronas glutamatergicas septales. Castaneda M.T.; Colom L.V.; Bañuelos, C; Hernandez, S.; Garcia J.A.. University of Texas at brownsville, 80 Fort Brown, Brownsville TX 78521

2009

La anatomia septohipocampica es alterada por la inyeccion del Beta Amiloide 1-40 . Castaneda M.T.; Colom L.V.; Bañuelos, C; Hernandez, S.; Garcia J.A.. University of Texas at brownsville, 80 Fort Brown, Brownsville TX 78521

2010

Intrahippocampal amyloid-b (1-40) Injections injure cholinergic septal neurons. 11th Annual UTB/TSC Research Symposium 2009. M.T. Castaneda, H. Guajardo, I Valdez. L.V. Colom..

Intrahippocampal amyloid- β (1-40) injections injure cholinergic septal neurons", Neuroscience 2009. (Chicago, Illinois) M.T. Castañeda, S. Jaime, S. Hernández , J.M. Peinado, L.V. Colom

2011

Hippocampal injections of Amyloid β 1-40 induce degeneration of cholinergic and glutamatergic septal neurons. *M. T. Castaneda¹, S. Jaime², S. Hernandez³, A. Tohuami³, J. M. Peinado³, A. Pearson, L. V. Colom⁴;

¹Univ. of Texas At Brownsville/University of Tamaulipas, H. Matamoros Tamaulipas, Mexico; ²Biol., ³Univ. of Texas at Brownsville, Brownsville, TX; ⁴Ctr. for Biomed. Research. University of Texas at Brownsville, Univ. of Texas, Brownsville Texas, TX (Neuroscience 2010 San Diego. Ca)

Hippocampal injections of Amyloid β 1-40 induce degeneration of cholinergic and glutamatergic septal neurons. B. Elorza¹, E.D. Michi¹, *M. T.

2012

Castaneda², S. Jaime², S. Hernandez², A. Tohuami³, L. V. Colom²; ²Ctr. for Biomed. Studies, ³Dept. of Physics, ¹Univ. of Texas At Brownsville, Brownsville, TX . 13th Annual Research Symposium. UTB TSC March 25, 2011.

2013

Medial septal β -amyloid 1-40 injections decrease septal Cholinergic and Glutamatergic neurons in rats, neuroprotective effect of Memantine. Colom L.V., Castaneda M.T, Aleman D. UTSA Research Conference. . Center for Biomedical Research at the University of Texas at Brownsville, 80 Fort Brown, Brownsville, TX 78520, USA. (San Antonio Texas).

Distribution of Kv7.2 and Kv7.3 in Neuronal Septal Groups Diego Aleman, Miriam D. De Leon, Erick Lopez, Osiel Perez, Maria T. Castaneda, Luis V. Colom. .Center for Biomedical Studies at the University of Texas at Brownsville, 2012 UTB Annual Research Symposium. 80 Fort Brown, Brownsville, TX 78520, USA.

Distribution of Kv7.2 and Kv7.3 in Medial Septal Neuronal Groups MT Castaneda, Luis V. Colom Diego Aleman, Miriam D. De Leon, Erick Lopez, Osiel Perez, Center for Biomedical Studies .Neurosciences 2012. New Orleans Oct, 2012.

15th Annual Research Symposium
University of Texas at Brownsville Potassium Channels Kv7.2 and Kv7.3 in Medial Neuronal Septal Group.
M. D. De Leon², D. Aleman², M. D. De Leon², E. D. Lopez², O. Perez², M. T. Castaneda¹ L. V. Colom².
¹Universidad Autónoma de Tamaulipas, Mexico; ²Center for Biomedical Studies at the University of Texas at Brownsville, 80 Fort Brown, Brownsville, TX78520, USA.
Pag32.

LVI Sociedad Mexicana de Ciencias Fisiologicas.
Opinión de un Grupo de Estudiantes de Medicina sobre la Importancia del Razonamiento Clínico como un Método Didáctico para Aumentar el Aprendizaje de la clase de Fisiología.M.T.Castaneda, H.Rodriguez,M.D. De Leon,E.D.Lopez,J.M. Rodriguez.N.FernandezFacultad de Medicina e Ingeniería en Sistemas Computacionales, Univ. Autónoma de Tamaulipas, Matamoros Tamaulipas, México¹, Facultad de Medicina, Univ. Autónoma de Nuevo León, Monterrey Nuevo León, México. Tlaxcala 2013.

2013 Society For Neurosciences
Evaluation of a group of medical students in physiology class at the school of medicine in University of Tamaulipas, México about clinical cases discussion as a teaching technique (clinical reasoning applied to neurophysiology)
M. T. Castaneda¹, H. Rodriguez², M. D. De Leon², E. D. Lopez², H. E. Rodriguez², N. E. Fernandez³; ¹Univ. of Tamaulipas, Matamoros Tamaulipas, Mexico; ²Biomed. Sci. Department,, Univ. of Texas at Brownsville, Brownsville, TX; ³Univ. Autonoma de Nuevo Leon, Monterrey Nuevo León, Mexico. San diego. Noviembre, 2013.

2013 Society For Neurosciences.

Genes, proteins and functions are early altered in an amyloid precursor protein overproducer Alzheimer's disease animal model.J.

Duran,M.Ortega,K.Correa,L.L.Antonio,M.T.Castaneda,E.Lopez,L.V.Colom UTB,. for Biomed. Studies, Univ. of Texas Brownsville, Brownsville, TX. Society For Neurosciences . San Diego 2013.

2014

16avo. Symposium University of Texas at Brownville

Up-Regulation Of KCNQ2 IN Septal Neurons in an Animal model of Alzheimer Disease.. Erick Daniel Lopez, Maria Teresa Castañeda, Luis V. Colom. Center for Biomedical Studies, University of Texas at Brownsville.(Abril 2014)

LVII Congreso nacional de Ciencias Fisiologicas de la Sociedad Mexicana de Ciencias Fisiologicas, Oaxaca , “El Aumento de Inmunoreactividad del Anticuerpo anti Kv7.2 en Neuronas Septales en un Modelo de Ratón Transgénico para el Estudio de la Enfermedad de Alzheimer”. Castañeda Licón Maria Teresa¹, Lopez Chávez Erick, Colom Luis Vicente [†]. Facultad de Medicina e Ingenieria en Sistemas Computacionales de la Universidad Autónoma de Tamaulipas ¹.The University of Texas at Brownville². Enviado y aceptado al Congreso nacional de Ciencias Fisiologicas de la Sociedad Mexicana de Ciencias Fisiologicas, Oaxaca , Sep, 2, 2014.

2015

Abstract Accepted B

Relationship between Academic Performance and Student Perception of two Different Educational Pathways: Department of Biomedicine (BMED) Bachelor of Science (BS) Hybrid Program and the Traditional BS program.

Chelsey Abraham, UTRGV – Brownsville, chelsey.abraham01@utrgv.edu; Maria Abraham, UTRGV – Brownsville, maria.abraham01@utrgv.edu; Delilah Wahid, UTRGV – Brownsville, delilah.wahid01@utrgv.edu; Maria Teresa Castaneda M.D. Ph.D., UTRGV – Brownsville, maria.castaneda@utrgv.edu; Manuel Saldivar Ph.D., UTRGV- Brownsville, manuel.saldivar@utrgv.edu; Hugo Rodriguez M.D., UTRGV – Brownsville, hugo.rodriguez@utrgv,edu . 2016 Innovations Conference . Austin Texas.

2016

Neuroprotection of Medial Septal Cholinergic Neurons by Memantine after Intralateral Septal Injection of A β 1-40. M. de Leon ,M. Ortega, R. Tovar, J.M. Rodriguez, E.D. Lopez, M. T. Castaneda, A. Tohuami, H.E Rodriguez. College of Biomedical Sciences , Physics Department at the University of Texas at Rio Grande Valley (Campus Brownsville) (2016 Annual Engaged and research Symposium).Awarded Top Five0

Relationship between Academic Performance and Student Perception of two Different Educational Pathways: Department of Biomedicine (BMED) Bachelor of Science (BS) Hybrid Program and the Traditional BS program. Chelsey Abraham, UTRGV – Brownsville, chelsey.abraham01@utrgv.edu; Maria Abraham, UTRGV – Brownsville, maria.abraham01@utrgv.edu; Delilah Wahid, UTRGV – Brownsville, delilah.wahid01@utrgv.edu; Maria Teresa Castaneda M.D. Ph.D., UTRGV – Brownsville, University of Texas at Rio Grande Valley (Campus Brownsville) (2016 Annual Engaged and research Symposium)

HONOURS AND AWARDS

Distinguished Professor. Universidad Autonoma de Tamaulipas.School of Medicine.

Academic Performance Award Universidad Autonoma de Tamaulipas. School of Medicine.

Extraordinary Professor. Universidad Autonoma de Tamaulipas

Academic Merit Award Universidad Autonoma de Tamaulipas

MEMBER OR ASSOCIATION

Colegio de Maestros Universidad Autónoma de Tamaulipas.

Asociación Mexicana de Médicos Familiares y Generales..

Society For Neuroscience

American Physiological Society

Sociedad Mexicana de Ciencias Fisiológicas.

