

Curriculum Vitæ

<i>Name</i>	Marco Atzori
<i>Home address</i>	823 Firestone lane Richardson, TX 75080
<i>Work address</i>	University of Texas at Dallas 2601 Floyd road/GR41 Richardson, TX 75080, USA
<i>Birthplace</i>	Oristano, Italy
<i>Date of birth</i>	5/6/1963
<i>Status</i>	married
<i>Citizenship</i>	Italian, U.S. resident
<i>Work telephone</i>	(972) 883 4311
<i>fax</i>	(972) 883 2491
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<i>web site</i>	http://bbs.utdallas.edu/lcsp/

Education

1989 B.S. in Physics, University of Trieste, Italy
experimental thesis on: "N.M.R., physical principles and
methods of imaging: texture analysis-based image processing".
1993 M.Sci. in Biophysics (S.I.S.S.A./I.S.A.S., Trieste) with a
thesis on: "The effect of repeated stimulation of the optic nerve
on evoked field potentials in the frog optic tectum".
1995 Ph.D. in Biophysics (S.I.S.S.A./I.S.A.S., Trieste) with a
thesis on: "Mechanisms of control and modulation of the
GABAergic system in the rat hippocampus"

Spoken languages

English, Spanish, Portuguese and Italian

Present position

Associate Professor, School for Behavioral and Brain Sciences,
University of Texas at Dallas

Past and current Memberships

Society for Neurosciences (SfN)
Association for Research in Otolaryngology (ARO)

External reviewer

MRC
Synapse
Neuroscience
Hippocampus
Cerebral Cortex
Neurobiology of Disease
Molecular Pharmacology
Journal of Neurochemistry
Journal of Neurophysiology
The Journal of Neuroscience
Developmental Neuroscience
Journal of Physiology London
Journal of Chemical Neuroanatomy
Molecular and Cellular Neuroscience

**Previous research
and
work experience**

October 1987 - March 1988
Hon. Research Assistant at the Human
Physiology Institute (University of Trieste)

April 1988 – April 1989 Magnetic Resonance Imaging trainee
at the Center of Evaluation of Biomedical Technologies
(CEVAB) at Research Area, Trieste, Italy.

September-1989 - October 1989 Teacher of Mathematics and
Physics at the Scientific Lycee (Oristano, Italy)

November 1989 -January 1990 Teacher of Informatics and
Systems Theory at the Technical Industrial Institute (Oristano,
Italy)

February 1990 - November 1991 Magnetic Resonance
Consultant, Polybios, Trieste Science Park.

January 1996 - January 1997 Post-doctoral Fellow at the
University of Tennessee at Memphis (Memphis, TN)

February 1997 - March 1997 Visiting Fellow at the Instituto de
Fisiologia Celular (Institute of Cell Physiology), Universidad
Nacional Autonoma de Mexico (UNAM, Mexico City,
Mexico)

April 1997 – April 1998 Visiting Fellow at the Lab. of Cell
Biology at Nat'l Institute of Deafness and other
Communication Disorders at NIH (NIDCD/NIH, Bethesda,
MD, USA)

May 1998 – January 2001 Visiting Fellow at the Lab. of Cell
and Synaptic Physiology at Nat'l Institute of Children and
Human Development at NIH (NICHD/NIH, Bethesda, MD,
USA)

February 2001- April 2001 Visiting Professor at the Institute of
Physiology at the “Centro de Investigaciones Regionales
Hydeyo Noguchi” (UADY, Merida, Yucatan, Mexico)

May 2001 – June 2004 Research Assistant Professor at the
Blanchette Rockefeller Neuroscience Institute (BRNI,
Rockville, MD)

September 2004 - August 2007 Assistant Professor, The
University of Texas at Dallas (UTD, Richardson, TX).

Past research

- Electrophysiological and morphologic characterization of GABAergic interneurons in rodent hippocampus.
- Modulation of GABAergic synaptic transmission.
- Voltage gated K⁺ channels.
- Physiology of sensory receptors
- Synaptic and cell physiology in the auditory cortex

Current research

- Role of acetylcholine in the cortex
- Cholinergic-monoaminergic cellular interaction
- Effects of environmental enrichment on cortical synaptic transmission
- Physiological characterization of the Tectal Longitudinal Column
- Action of monoamines and cholinomimetics on auditory attention
- Effects of monoamines and cholinomimetics on auditory responses *in-vivo*

Future plans

Study of Local cortical networks
Anatomy, physiology and neuromodulation with pair recordings
Realistic computational models of small cortical networks
G-protein receptor interactions

Fields of potential clinical applications

- Alzheimer disease
- Auditory rehabilitation
- Schizophrenia, psychoses
- Attention deficit disorders

Laboratory techniques

Slice Physiology:

patch-clamp, sharp electrodes and extracellular recording in rodent brain slices

In-vivo physiology:

Multi-single-unit extracellular recording,
topical iontophoresis and pressure drug application

Anatomy:

biocytin single-cell reconstruction - neuron tracing

Immunohistochemistry:

membrane proteins monitoring with fluorescence techniques

Modeling:

MatLab simulations of integrate-and-fire networks

Behavior:

Automated set-up for the measurement of auditory attention and stress

Invited talks

January 2001, Howard University, Washington DC, Dept. of Physiology.
Host: Prof: Cloyd Truth

February 2001, Universidad Nacional Autonoma de Mexico, Unidad de Ixtacala.
Mexico. Host: Prof. Jaime Barral

April 2001: Centro de Investigaciones Regionales Hideyo Noguchi, Merida, Yucatan,
Mexico. Host: Prof. Juan Carlos Pineda

March 2002: University of Maryland at College Park, Center for Acoustic and
Auditory Research, Electrical and Computer Engineering Dept., Inst. for System
Research. Host: Prof. Shihab Shamma

October 2002: University of Maryland at Baltimore, Dept. of Neurosciences
Host: Prof. Didier Depireux

October 2003, Johns Hopkins University, The David Bodian seminar in Neuroscience
Host: Dr. Alfredo Kirkwood.

January 2004, Universidad Autonoma de Mexico, Department seminar
Host: Dr. Jose' Bargas.

February 2004, Benemerita Universidad Autonoma de Puebla, Instituto de Fisiologia.
Host: Dr. Jorge Flores.

March 2004, University of Texas at Dallas, Institute of Brain and Behavior.
Host: Dr. Michael Kilgard.

November 2005, Universidad de los Andes, Santiago, Chile, Escuelas de Psicologia.
Host: Dr. Rodrigo Paz

November 2005, Instituto Psiquiatrico Horwitz Barak, Santiago, Chile.
Host Dr. Rodrigo Paz

January 2006, Winter Conference on Brain Research, Steamboat Springs, Colorado,
Panel organizer

September 2006, Neurobiology Seminar Series, UTSA, San Antonio, Texas
Host: Dr. Charles Wilson

October 2006, Prog. in Neurosci. Seminar Series, Indiana University, Bloomington
Host: Dr. Laura Hurley

April 2007, Seminar series at the Southern Research Institute, Birmingham, AL
Host: Dr. Maurizio Grimaldi

October 2007, IBRO meeting, Merida, Yucatan, Mexico
Host: Dr. Juan Carlos Pineda Cortez

November 2007, SfN 35th Annual Meeting, San Diego, CA
Slide session on excitatory aminoacid receptor modulation

February 2008, ARO 31st Midwinter meeting, Phoenix, AZ
Slide session on noradrenergic modulation of GABAergic release

Abstracts:

- (1) Bon L., **Atzori M.** and Lucchetti C.:
Joint meeting S.I.B.S.-S.I.F.-S.I.N.U.
Alghero September 26-28 1988.
The effect of attention on features of eye movement of the monkey
- (2) Pinto I., Bravar D., **Atzori M.** and Giribona P.:
Eighth annual meeting of the society of Magnetic Resonance in Medicine
Amsterdam November 12-18 1989
"Assessment of a protocol for M.R. scanners performance measurements"
- (3) **Atzori M.** Kvam J.B., Toffanin R., Paoletti S.
First Joint Meeting
Società Chimica Italiana:
Gruppo Interdivisionale dei Carboidrati
Società Italiana di Biochimica: Gruppo dei Glicoconiugati
Alghero May 27-28 1991
"Conformational behaviour of Hyaluronates Salts and Esters in Dimethylsulfoxide: a comparison of hydrogen bond pattern and Conformational Behaviour"
- (4) **Atzori M.**, Toffanin R., Kvam J.B. and Paoletti S.:
International Union of Pure and Applied Chemistry
Slovak Academy of Sciences
International Conference on Polymers
Bratislava High Tatras Czecho-Slovakia, June 10-14 1991
"1H and 13C study of solution properties of hyaluronan derivatives"
- (5) Toffanin R., **Atzori M.**, Kvam J.B., Flaibani A. and Paoletti S.:
AIRM-GIRM-GDRM Congresso di Risonanza Magnetica
C.N.R. Area di Ricerca
Milano October 23-25 1991
"Study on Oligosaccharides of Hyaluronic Acid"
- (6) Toffanin R., Kvam J.B., **Atzori M.**, Cescutti P. and Paoletti S.:
AIRM-GIRM-GDRM Congresso di Risonanza Magnetica
C.N.R. Area di Ricerca
Milano October 23-25 1991
"N.M.R. spectra of the trisaccharide by Smith degradation from the capsular polysaccharide extracted from Klebsiella 40"
- (7) **Atzori M.** and Nistri A.:
XVII Conférence en Neurobiologie de Gif
Mechanism and Regulation of Neurotransmitter Release
Gif-sur-Yvette December 3-4 1992
"An unusual feature in the fatigue-dependent process of synaptic transmission in the frog optic tectum"

- (8) **Atzori M.** and Nistri A.:
Physiological Society Meeting
Southampton September 27-29 1993
Journal of Physiology 473,168P 1993
"Synaptic fatigue in the Rana temporaria optic tectum in vitro following repetitive stimulation of the optic nerve"
- (9) **Atzori M.** and Nistri A.
Life Science Meeting 1995
Physiological and Biophysical Societies of Slovenia
Gozd Martuljek September 23-28 1995
"Modulation of GABAergic transmission in the rat hippocampal slice by the neuropeptide TRH"
- (10) **Atzori M.**, Nistri A., Sciancalepore M. and Stocca G.
25th Annual Meeting
Society for Neuroscience
S. Diego U.S.A. November 11-16 1995
"Effects of TRH on GABAergic synaptic transmission of the rat hippocampus"
- (11) Strata F., **Atzori M.** and Molnar M.
25th Annual Meeting
Society for Neuroscience
S. Diego U.S.A. November 11-16 1995
"Nitric Oxide "paces" giant GABAergic activity in the developing rat hippocampus through a transiently expressed neuronal structure"
- (12) Strata F., **Atzori M.** and Cherubini E.
26th Annual Meeting
Society for Neuroscience
Washington DC U.S.A. November 16-21 1996
"Developmental regulation of intrinsic membrane oscillation in rat CA3 hippocampal neurons"
- (13) **Atzori, M.** and Kachar B.
22nd ARO Annual Meeting
Association for Research in Otorinolaryngology
St. Petersburg, FL U.S.A. February 1998
"Insensitivity of the OHC motor to voltage-gated channel blockers"
- (14) **Atzori, M.** and Tansey E.
23rd ARO Annual Meeting
Association for Research in Otorinolaryngology
St. Petersburg, FL U.S.A. February 1999
"Local Circuitry in Auditory Cortex studied by Neuron-Pair Patch-Clamp Recording"
- (15) **Atzori M.**, E. Phillips-Tansey, D. Lau, A. Ozaita, A. Chow, B. Rudy and C.J. McBain
27th Annual Meeting, Society for Neuroscience
Miami, FL, U.S.A., October 1999.
PKA phosphorylation of Kv3.2 modulates high frequency firing in hippocampal interneurons.
- (16) Grimaldi M., **Atzori M.**, Ray P. and Alkon D.
NIH Research Festival
October, 1999
4-Aminopyridine activates phospholipase C and enhances calcium mobilization in cortical type I rat astrocytes: effects unrelated to K⁺ channel blockade.
- (17) **Atzori M.**, P. Kanold, E. Phillips-Tansey, C.J. McBain

24th ARO Annual Meeting
Association for Research in Otolaryngology
St. Petersburg, FL U.S.A. February 2000
Short term synaptic plasticity in pairs of connected cells of the auditory cortex.

- (18) C.J. McBain, P.Kanold, E. Phillips-Tansey and **Atzori M.**
28th Annual Meeting
Society for Neuroscience
New Orleans, LA, U.S.A., November 2000.
Short-term synaptic plasticity in connected pairs of auditory cortex neurons.
- (19) **Atzori M.**, E. Phillips-Tansey, D. Lau, A. Ozaita, A. Chow, B. Rudy and C.J.McBain
28th Annual Meeting, Society for Neuroscience
New Orleans, LA, U.S.A., November 2000.
Histamine modulates high frequency firing in hippocampal interneurons through PKA phosphorylation of Kv3.2.
- (20) **Atzori M.**, P. Kanold, E. Phillips-Tansey, C.J. McBain
25th ARO Annual Meeting, Association for Research in Otolaryngology
St. Petersburg, FL U.S.A. February 2001
High-p and low-p synapses connect pyramidal neurons in layer II/III of the mouse auditory cortex
- (21) A. Huttner, **Atzori M.**, C.J.McBain and R.D.G. McKay
29th Annual Meeting, Society for Neuroscience
San Diego, CA, U.S.A., November 2001.
Transplanted neural precursor cells form functionally active circuits
- (22) **Atzori M.**
25th ARO Annual Meeting
Association for Research in Otolaryngology
St. Petersburg, FL U.S.A. January 2002
Effects of dopamine on the glutamatergic transmission in the auditory cortex
- (23) **Atzori M.**, P.O. Kanold
Dopamine Blocks Acetylcholine-induced Reduction of Glutamate Currents in the Auditory Cortex
Association for Research in Otolaryngology 26th Annual Meeting
Daytona Beach, FL U.S.A. February 2003
- (24) **Atzori M.**, P.O. Kanold, J.Flores-Hernandez and J.C. Pineda
New York Academy of Science
Meeting on Glutamate and Disorders of Cognition and Motivation
New Haven, CT U.S.A. April 2003
Dopamine prevents the reduction of glutamatergic synaptic currents induced by acetylcholine
- (25) **Atzori M.**, R. Paz
31st Annual Meeting, Society for Neuroscience
New Orleans, LA, U.S.A., November 2003.
Blockage by dopamine of the muscarinic depression of glutamate release:
a psychotigenic mechanism?
- (26) **Atzori M.**, J. Flores- Hernandez, J.C. Pineda
27th ARO Annual Meeting
Interlaminar differences of spike activation threshold in the auditory cortex of the rat.
Association for Research in Otolaryngology
Daytona Beach, FL U.S.A. February 2004

- (27) Flores-Hernández J, Couto Roldán E, González Sánchez JC, García Moreno Elizondo G, Avila Ruíz T, **Atzori M**
17th Meeting of the Mexican Society of Physiological Sciences
Boca del Rio, Veracruz, Mexico, August 2004
Modulation of glutamatergic currents in dissociated cells of prefrontal cortex, temporal cortex and Nucleus Accumbens
- (28) **Atzori M.**, Couto-Roldan E., Gonzales-Sanches J.C., Avila-Ruiz T., Flores-Hernandez J.
32nd Annual Meeting, Society for Neuroscience
San Diego, CA, U.S.A., October 2004
Fast modulation of NMDAR-mediated current by acetylcholine and dopamine
- (29) Cui C. and **Atzori M.**
Gordon Conference on Excitatory Amino Acid and Brain Function
Assois, France, September 2005
Voltage-dependent block of NMDA receptor by dopamine D1 receptor ligands
- (30) Mancera B.D., Flores-Hernandez J., **Atzori M.**, Ponce-Perez L., Martinez-Rodriguez M.G., Monjaraz E.
32nd Annual Meeting, Society for Neuroscience
San Diego, CA, U.S.A., October 2004
Long-term treatment with GHRP-6 enhances functional expression of sodium channels in the tumor cell line GC
- (31) Bellay T., Nichols J., Byrapureddy R, Gibbons B, **Atzori M**
33rd Annual Meeting, Society for Neuroscience
Washington, DC, U.S.A., November 2005
Dopamine impairs muscarinic depression of GABAergic currents in the temporal cortex
- (32) J. Nichols, V. Jakkamsetti, R. Byrapureddy, B. Roof, H. Bui, T. Thompson, M. Kilgard, **M. Atzori**
Atzori
Association for Research in Otolaryngology 29th Annual Meeting
Baltimore, February 2006
Effect of Enriched Environment on Synaptic Transmission in the Rat Auditory Cortex
- (33) J. Nichols, V. Jakkamsetti, M. Kilgard, **M. Atzori**
34th Annual Meeting, Society for Neuroscience
Atlanta, GA, U.S.A., November 2006
Enriched Environment selectively increases excitatory synaptic transmission in layer 2/3 of the Rat Auditory Cortex
- (34) Salgado H., Bellay T., Nichols J., Perrotti L., Martinolich L., **Atzori M**
34th Annual Meeting, Society for Neuroscience
Atlanta, GA, U.S.A., November 2006
Decrease of GABA release by Muscarinic M2 receptors and PIP2 kinase activation
- (35) Flores Hernandez J., **Atzori M**
34th Annual Meeting, Society for Neuroscience
Atlanta, GA, U.S.A., November 2006
Second-messenger independent cholinergic block of NMDA currents
- (36) J. Nichols, V. Jakkamsetti, M. Kilgard, **M. Atzori**
Neuroengineering Now, School of Engineering and Computer Science
Dallas, TX, U.S.A., June 2006
Quantitation of the effects of environmental enrichment on auditory cortex synapses

- (37) L. Dinh, **M. Atzori**
 Neuroengineering Now, School of Engineering and Computer Science
 Dallas, TX, U.S.A., June 2006
 Development of a three-cell compartment realistic cortical neuronal model
- (38) J. Nichols, A. Patel, M. Bose, A. Viñuela, M.A. Aparicio, E. Saldaña, **M. Atzori**
 Association for Research in Otolaryngology 30th Annual Meeting
 Denver, February 2007
 Firing pattern of neurons from the Tectal Longitudinal Column.
- (39) H. Salgado, **M. Atzori**
 International Congress on Schizophrenia Research, Colorado Springs, Colorado, March 2007
 Dopaminergic-muscarinic interplay in the regulation of the temporal cortex excitation
- (40) A. Patel, J. Nichols, M. Bose, A. Viñuela, M.A. Aparicio, E. Saldaña, **M. Atzori**
 35th Annual Meeting, Society for Neuroscience
 San Diego, CA, U.S.A., November 2007
 Single-neuron membrane properties of the Tectal Longitudinal Column.
- (41) R. Byrapureddy, M. Bose, **M. Atzori**
 35th Annual Meeting, Society for Neuroscience
 San Diego, CA, U.S.A., November 2007
 Dopamine partially blocks cholinergic increase in firing rate of neurons of the temporal cortex.
- (42) Effect of sensory stimulation on the neuronal morphology in the auditory cortex
 35th Annual Meeting, Society for Neuroscience
 San Diego, CA, U.S.A., November 2007
 M. Bose, V. Jakkamsetti, J. A. Nichols, R. Byrapureddy, M. Kilgard, **M. Atzori**
- (43) Acetylcholine increases time-locking without increasing S/N ratio in in vivo recordings from the primary auditory cortex of the anesthetized rat
 31st Midwinter Association for Research in Otolaryngology meeting
 Phoenix, AZ, U.S.A., February 2008
 J. Nichols, B. Roof, H. Salgado, V. Jakkamsetti, M. Kilgard, **M. Atzori**

Courses

fall 04	seminar in synaptic transmission	NSC 7372
spring 05	cellular neuroscience	ACN 6340
fall 05	neurophysiology	NSC 4365
spring 06	cellular neuroscience	ACN 6340
spring 06	neuroscience lab. meth.	NSC 4353
fall 06	cellular neuroscience	NSC 4352
fall 06	neurophysiology	NSC 4356
spring 07	cellular neuroscience	ACN 6340
spring 07	quantitative methods in neuroscience	HCS 7372
fall 07	seminar in syn. plasticity	HCS7372
fall 07	cell. neurosci.	CAN 6340
spring 08	special topics in Neurosci	NSC 4V90
spring 08	cell. Neurosci	ACN 6340

Committees and evaluations:

UTD Evaluator for medical and dental school candidates (HPAC)
Member of the UTD animal control committee (IACUC)

Students supervised for more than one semester:

Doctoral students

R. Byrapureddy
L. Dinh
J.A. Nichols
S. Roychowdhury

Master students

T. Bellay (M.Sci. Neuroscience, current position, visiting fellow at NINDS, Bethesda)
M. Bose (M.Sci. Neurosci. current position, research assistant at UTSW, Dallas)
A. Pace (M. Sci., current position, medical student at UT Houston)
A. Patel (UTD/UTSW)
T. Nguyen (UTD)
D. Brown (UTD)

Undergraduate students

Holly	Cherian
Mustapha	Che Said
Bryan	Roof
Grant	Antoine
Sundus	Alridi
Francisco	Garcia
Aysha	Jabbar
Sani	Mathew
Aurelien	Begue
Tresa	Zacharias
Amulya	Ydlapalli
Iris	Gonzales (Tech Monterey, Mexico)
Chanel	Matney

Collaborators

National collaborators:

Michael Kilgard (UTD, Texas)
Patrick Kanold (UMCP, Maryland)

International collaborators:

Alexies Dagnino-Subiabre (Univ. Catolica del Norte, Chile)

Jorge Flores-Hernandez (Benemerita Universidad Autonoma de Puebla, Puebla, Mexico)

Juan Carlos Pineda-Cortes (Universidad Autonoma de Yucatan, Merida, Mexico)

Enrique Saldaña, Universidad de Salamanca, Salamanca, Spain

Kuei-Yuan Tseng, Rosalind Franklin University, Chicago, USA

Rodrigo Paz, Hospital Psiquiatrico Horwitz Barak, Santiago, Chile

Publications

- (1) B.J.Kvam, **M.Atzori**, R.Toffanin, S.Paoletti and F.Biviano
"1H- and 13C-NMR studies of solutions of hyaluronic acid esters and salts in methyl sulfoxide: comparison of hydrogen bond patterns and conformational behaviour"
Carbohydrate Research (1992) 230:1-13
- (2) R.Toffanin, B.J.Kvam, A.Flaibani, **M.Atzori**, F.Biviano and S.Paoletti
"N.M.R. studies of oligosaccharides derived from hyaluronate: complete assignment of 1H and 13C NMR spectra of aqueous di- and tetra-saccharides, and comparison of chemical shifts for oligosaccharides of increasing degree of polymerisation"
Carbohydrate Research (1993) 245:113-128
- (3) **M.Atzori** and A.Nistri
"Non-monotonic decay of excitatory synaptic transmission in the frog optic tectum following repetitive stimulation of the optic nerve in vitro"
Experimental Brain Research (1994) 102:287-296
- (4) **M.Atzori**
"Cl- transporter block enhances GABAergic spontaneous activity in rat hippocampal CA3 cells"
NeuroReport (1994) 5:2509-2512
- (5) **M. Atzori**
"Pyramidal cells and Stratum Lacunosum-Moleculare interneurons in the CA1 hippocampal region share a GABAergic spontaneous input"
Hippocampus (1996) 6:72-78
- (6) **M.Atzori** and A. Nistri
"Effects of Thyrotropin Releasing Hormone on the GABAergic synaptic transmission of the rat hippocampus"
European J. Neuroscience (1996) 8:1299-1305
- (7) J. Györi, **M. Atzori** and E. Cherubini
Post synaptic induction of mossy fibre Long Term Depression in developing rat hippocampus
Neuroreport (1996) 7:1660-4

- (8) F.Strata, **M. Atzori**, M.Molnar, G. Ugolini, F. Tempia and E. Cherubini
A pacemaker current in dye-coupled hilar interneurons contributes to the generation of Giant GABAergic Potentials in developing hippocampus.
J. Neuroscience (1997) 17:1435-46
- (9) F. Strata, **M. Atzori**, M. Molnar, G. Ugolini and E. Cherubini
"Nitric Oxide Sensitive Depolarization-Induced Hyperpolarization: a possible role for gap junctions during development"
European J. of Neuroscience, 10: (1) 397-403 Jan 1998
- (10) G.I. Frolenkov, **M. Atzori**, F. Kalinec, F. Mammano and B. Kachar
"The membrane-based mechanism of cell motility in cochlear outer hair cells"
Mol Biol Cell. 9(8): 1961-8, Aug 1998
- (11) **M. Atzori**, D. Lau, E. Phillips-Tansey, A. Chow, A. Ozaita, B. Rudy and C.J. McBain
H2 histamine receptor phosphorylation of Kv3.2 modulates interneuron fast spiking
Nature Neurosci. 3 (8) Aug. 791-8, 2000
- (12) M. Grimaldi, **M. Atzori**, and D. Alkon
Mobilization of Calcium from Intracellular Stores, Potentiation of Neurotransmitter-Induced Calcium Transients, and Capacitative Calcium entry by aminopyridine
J. Neurosci. 21(9), 3135-43, 2001.
- (13) **M. Atzori**, S. Lei, D.I.P. Evans, P. Kanold, E. Phillips-Tansey, O. McIntyre and C.J. McBain
Differential synaptic processing separates stationary from transient inputs to the auditory cortex
Nature Neurosci. Dec. 4 (12), 1230-7, 2001.
- (14) **M. Atzori**, P.O. Kanold, J.C. Pineda and J. Flores-Hernandez
Dopamine-acetylcholine interactions in the modulation of glutamate release
N Y Acad. Sci., 2003, 1003, 346-8.
- (15) **M. Atzori**, J.F. Hernandez, J.C. Pineda
Interlaminar differences of activation threshold in the auditory cortex of the rat.
Hearing Res. 2004, 189, 101-6.
- (16) **M. Atzori**, P.O. Kanold, J.C. Pineda and J. Flores-Hernandez, R. Paz
Dopamine prevents muscarinic-induced decrease of glutamate release in the auditory cortex
Neuroscience, 2005, 134, 1153-65.
- (17) F. Dufour, Q. Liu, **M. Atzori**
Effects of cholesterol-rich diet on the rat on spatial memory
Brain Res. 2006, 1103, 88-98.

- (18) C. Cui, M. Xu, **M. Atzori**
Voltage-dependent Block of NMDA Receptors by Dopamine D1 Receptor Ligands
Molecular Pharm. 2006, 70, 1761-70.
- (19) J. Nichols, V. Jakkamsetti, H. Salgado, L. Dinh, M. Kilgard, **M. Atzori**
Environmental enrichment selectively increases excitatory synaptic transmission to layer 2/3 in the temporal cortex
Neuroscience, 2007, 145, 832-40.
- (20) H. Salgado, T. Bellay, J. A. Nichols, M. Bose, L. Martinolich, L. Perrotti, and **M. Atzori**
M₂ muscarinic receptors decrease the release of GABA in the auditory cortex by modulating Ca²⁺ channels through activation of PI₃K/PKC
J. Neurophysiol., 98: 952-65 2007.
- (21) J. Flores-Hernandez, H. Salgado, M. Bose, T. Avila-Ruiz, T. Hernandez-Flores, V. De la Rosa, O. Torres-Ramirez, and **M. Atzori**
Cholinergic direct block of N-methyl-D aspartate receptor-mediated currents in the rat auditory cortex.
Synapse 2008, in press
- (22) R.D. Paz, S. Tardito, **M. Atzori**, K.Y. Tseng
Glutamatergic Dysfunction in schizophrenia: from basic neuroscience to clinical psychopharmacology
European Neuropsychopharmacology 2008, in press
- (23) M. Bose, P. Munoz, S. Roychowdhury, J. Nichols, V.P. Jakkamsetti, B. Porter, R. Byrapureddy, H. Salgado, M.P. Kilgard, F. Aboitiz, A. Dagnino-Subiabre, **M. Atzori**
Effect of the environment on the dendritic morphology of the rat auditory cortex
Submitted
- (24) H. Salgado, T. Bellay, J.A. Nichols, M. Bose, **M. Atzori**
Norepinephrine differentially affects supragranular and infragranular GABAergic signalling in the auditory cortex
In preparation
- (25) J. Nichols, A. Patel, H. Salgado, L. Martinolich, M. Bose, M.A. Aparicio, E. Saldaña, **M. Atzori**
Firing pattern and K⁺ currents in fast-spiking neurons of the auditory brainstem nucleus Tectal Longitudinal Column, in preparation
- (26) H. Salgado, T. Bellay, **M. Atzori**
Co-activation of D1- and D2-like dopamine receptors impairs muscarinic depression of GABA release in the auditory cortex
in preparation

- (27) L. Dinh, T. Nguyen, R. Byrapureddy, H. Salgado, **M. Atzori**
Mixed high- and low-probability synapses improve signal recognition in a
computational model of auditory cortex. In preparation

Books edited

K. Tseng and **M. Atzori** editors
Monoaminergic Modulation of Cortical Excitability
ed. Springer
ISBN-10: 0387722548; **ISBN-13:** 978-0387722542

Books chapters

M. Atzori and R. Paz, chapter
Interplay between Dopamine and Acetylcholine in the Modulation of Attention
in "Monoaminergic Modulation of Cortical Excitability"
ed. Springer

M. Atzori, H Salgado and K.Y. Tseng, chapter
Regulation of Cortical Functions by the Central Noradrenergic System
in "Monoaminergic Modulation of Cortical Excitability"
ed. Springer

J.A. Nichols, M. Bose, V.P. Jakkamsetti, M.Kilgard and **M. Atzori**, chapter
Auditory environment-induced brain plasticity
in "Limbic system and stress"
ed. F. Aboitiz and A. Dagnino
Research Signpost/Transworld Research Network, in press

**Awards and
Grants**

1996 J. William Fulbright scholarship by USIA/CIES

1996/1997 Post-doctoral fellowship by FY96-67 University of Tennessee Neuroscience Center

1999 NIH FARE -- The Fellows Award for Research Excellence

2003 National Alliance for Research in Schizophrenia and Depression: Young Investigator Award, First installment

2004 National Institute of Health, 5R01DC005986-01:
Acetylcholine and dopamine modulation in auditory cortex

2004 National Alliance for Research in Schizophrenia and Depression: Young Investigator Award, Second installment

2005 National Institute of Health, 5R01DC005986-02:
Acetylcholine and dopamine modulation in auditory cortex

2006 American Audiology Association, Physiological and Anatomical characterization of the Tectal Commissural Column (mentor M. Atzori, PI Justin Nichols)

2006 National Institute of Health, 5R01DC005986-03:
Acetylcholine and dopamine modulation in auditory cortex

2007 National Institute of Health, 5R01DC005986-04:
Acetylcholine and dopamine modulation in auditory cortex