

**Curriculum Vitae**  
**Marvin A. Rossi, M.D., Ph.D.**  
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**Resident Address:**

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**Career Summary Statement**

To establish and develop a robust translational technology initiative for facilitating pacing the next generation epilepsy treatment center with the following objectives.

- 1) **Clinical Diagnostic Goal:** further develop innovative diagnostic functional imaging techniques for identifying intractable epileptic circuits for neurosurgical intervention.
- 2) **Treatment Goal:** develop to maturity nano-control 'electroceutical' interface tech for stabilizing intractable epileptic networks.
- 3) **Clinical Presence Goal:** advance transformational rural epilepsy care leveraging novel communication connectivity and population health management strategies.

**Education**

**1989-2004** Rush University Graduate College  
Molecular Biophysics & Physiology  
Chicago, IL  
**Degree: PhD**

**1987-1996** Rush Medical College  
Chicago, IL  
**Degree: MD**

**1982-1987** Beloit College/Rush University  
Beloit, WI and Chicago, IL  
**Degree: BA/BS**

A handwritten signature in black ink, appearing to read 'Marvin A. Rossi', written in a cursive style.

**Appointments & Training**

- 2015-pres.** Associate Professor, RUMC Depts. Neurological Sciences, Diagnostic Radiology and Nuclear Medicine
- 2015-pres.** Co-Director, Multi-modality Neuroimaging & Neuroengineering Laboratory, Rush Epilepsy Center
- 2015-pres.** Associate Director, Translational Research, Rush Epilepsy Center, RUMC
- 2015-pres.** Adjunct Professor, Illinois Institute of Technology (IIT), Dept. Bioengineering, Chicago, IL
- 2012-2015** Assistant Professor, Diagnostic Radiology & Nuclear Medicine, RUMC
- 2011-pres.** Adjunct Assistant Professor, University of Illinois at Chicago, Dept. of Bioengineering
- 2003-2015** Assistant Professor & Senior Attending, Rush Epilepsy Center, RUMC
- 2001-2002** Advanced Epilepsy Fellowship (Pediatric & Adult), Rush Epilepsy Center, RUMC
- 2000-2001** Clinical Neurophysiology Fellowship, University of Chicago Hospitals
- 1997-2000** Neurology Residency, University of Chicago Hospitals
- 1996-1997** Postgraduate Medicine Preliminary Year, Rush Presbyterian St. Lukes Medical Center, Chicago, IL

**Professional Certifications & Licenses**

- 2014-pres.** American Board Psychiatry & Neurology (ABPN) MOC Requirement Certificate (Up to Date)
- 2015-2025** ABPN MOC Certification: Diplomate in Psychiatry & Neurology (Up to Date)
- 2013-2023** ABPN Certification: Diplomate in Epilepsy (Inaugural examination #371; Up to Date)
- 2003-2013** ABPN Certification: Diplomate in Psychiatry & Neurology
- 1996-2023** Illinois Licensed Physician

## Patents

- 10/2017-04/2016-07/2014-** (U.S. Patent 9,802,050). Energy-Releasing Carbon Nanotube Transponders.  
(U.S. Patent 9,302,114). Energy-Releasing Carbon Nanotube Transponders.  
(U.S. Patent 8,788,033). Energy-Releasing Carbon Nanotube Transponders. Published by World Intellectual Property Org, 4/25/11. U.S. Patent granted 7/24/14.  
<https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2011034939>
- 2014** (Application submitted: PCT/US2014/62/088,170) Carbon Nano-Electrode Augmented Direct Stimulation Therapy & Electrode Placement Planning System.

## Translational Research Projects

- 2011-** Co-founder & principal investigator of the ‘On-Call Video Visit Mobile Health Initiative of McHenry County’: This community outreach initiative establishes access to state-of-the-art epilepsy healthcare in rural northeast Illinois using ‘portable’ video conferencing technology and a Coordination Center through the Epilepsy Foundation of North Central Illinois. The initiative includes digitization of the patient care record and custom healthcare portal coordination system developed in our RUMC laboratory. The initiative facilitates formulating and delivering time-critical healthcare to epilepsy patients by interconnecting sub-specialist, primary care providers, school nurses, mental health providers, and ancillary resources using mobile health information technologies (mHIT).  
<http://www.synapticom.net/outreach/>
- 2009-** Founder of the ‘Multicenter Translational Nanotechnology Research Initiative for the Treatment of Epilepsy and Primary Brain Cancer’ in association with the University of Illinois at Chicago Department of Bioengineering.  
[http://lppd.bioe.uic.edu/RET/Research/Research%20profiles/Research\\_Nanotechnology\\_Rossi.pdf](http://lppd.bioe.uic.edu/RET/Research/Research%20profiles/Research_Nanotechnology_Rossi.pdf)
- 2009-** Co-development of novel dynamic SPECT neuroimaging using a high-res portable SPECT scanner (inSPira, NeuroLogica, Inc) for identifying the seizure-onset region in epileptic circuits of patients with medication-resistant focal-onset epilepsy. **Samsung-NeuroLogica, Inc.**  
<http://www.synapticom.net/projects/>
- 2009-** Synthesis of a technetium labeled carbon nanotube-interleukin-13 ligand complex for electric field-guided targeting of high-grade astrocytoma cells in a xenograft rat model: A precursor to therapeutic delivery of targeted ultra-high charge nano-ablative therapy. **Philanthropy/Institutional/Dept of Neurosurgery.** <http://www.synapticom.net/projects/>
- 2007-2013** Terminating the ictal onset: On-Demand nanobolused intracerebral delivery of RWJ-333369 with responsive neurostimulation. **Johnson & Johnson Pharma R&D.**
- 2006-2009** Evaluation of Interictal Epileptiform Density and Global Field Power in Localization-Related Epilepsy Following Administration of Intravenous and Oral Levetiracetam (Co-principal investigator). **UCB Pharma.**
- 2005-** Noninvasive Presurgical Estimation of the Volume of Cortical Activation for Optimizing Intracranial Electrode Placement During Responsive Neurostimulation. **NeuroPace, Inc.**
- 2004-** Rush primary programmer for the NeuroPace<sup>®</sup> Responsive Neurostimular System for Epilepsy Multicenter Efficacy Project, and Medtronic<sup>®</sup> SANTE Deep Brain Stimulator for Intractable Epilepsy Multicenter Feasibility and Efficacy Projects.
- 2002-** Founder and Director of the Epilepsy SPECT Neuroimaging Laboratory (RUSH Epilepsy Center). Implementation of innovative blood flow & metabolic imaging is emphasized. Emphasis is placed on the augmentation of the presurgical epilepsy evaluation.  
<http://www.synapticom.net/nucmedlab/>

**1996-2005** Source Localization of the P300 using fMRI as an early marker of hippocampal dysfunction.  
**1989-2004** PhD. Dissertation: Signal transduction-related correlates of age dependent spatial memory ability in aged F344 rats: *In situ* changes of cholinergic muscarinic and PKC receptor subtypes.  
**Academic Advisors:** Frank Morrell MD (deceased) & Leyla deToledo-Morrell PhD (deceased).  
 Outside Advisor: Deborah C. Mash PhD, University of Miami School of Medicine. Predoctoral work funded by grants from the National Institutes on Aging of the NIH, NSF and Rush University.

**2001-** Principal software developer, programmer and license owner of the 'EEG Report Composer, Relational Database and EEG Atlas. Distributed by SynaptiCOM, Inc.

**1989-1996** Structural synaptic remodeling following the induction of long-term potentiation (LTP) in age-separated F344 rats. Paradigm used stereotactically freely moving young and aged F344 rats.

**1992-2000** Founder & developer of the Interactive Computerized Neurocog Task Project. Development of integrated touch sensitive display, voice recognition computerized neurocognitive tasks for assessing: 1) hippocampal, 2) dorsolateral frontal neocortical, & 3) neocortical auditory neurocognitive function.

#### **Funding (for Principal Investigator Initiated Projects)**

**2020-2023** A Phase I Clinical Trial to Determine the Feasibility of a Human Cortical Visual Prosthesis for People with Blindness

**Funding Source:** NINDS, under NIH Brain Initiative

**2018-2019** McHenry County IL Epilepsy, Mental Health, & Traumatic Brain Injury Implementation Initiative

**Funding Source:** McHenry County Mental Health Board

**Award Amount: \$515,300**

**2017-2019** Rural Mobile Health Platform for Amplifying Epilepsy Treatment Adherence & Patient Education

**Funding Source:** UCB, Inc

**Award Amount: \$257,230**

**2016-2021** Development of Novel Nano-transponders for Remodeling Injured Neural Networks in a Model of Traumatic Brain Injury & Self-Sustained Seizures

**Competitive Funding Source:** Foglia Family Foundation

**Award Amount: \$300,000**

**2016-2021** Development of a Mobile Health Delivery Model for Children & Adults with Refractory Epilepsy (Supporting Epilepsy Health Management of McHenry County, IL)

**Competitive Funding Source:** Foglia Family Foundation

**Award Amount: \$300,000**

**2016-2017** McHenry County IL Traumatic Brain Injury Implementation Initiative

**Competitive Funding Source:** McHenry Cty. Mental Health Grant

**Award Amount: \$368,000**

**2014-2017** Interfacing a Mobile Health Delivery Model for Pediatric Patients with Refractory Epilepsy

**Competitive Funding Source:** Illinois Children's Healthcare Fund

**Award Amount: \$404,171**

**2015-2017** Investigator-Initiated Mobile Health Implementation Grant

**Competitive Funding Source:** Upsher-Smith Laboratories

**Award Amount: \$168,649**

**2013-** Mary Caitlin Keane Epilepsy Research Fund

RUSH Philanthropy

**Award Amount: \$49,000**

**2012-2015** Novel Nanotransponder Technology Development Startup Initiative

RUSH Philanthropy

**Award Amount: \$310,000**

**2012-** Dept of Diagnostic Radiology, Epilepsy Division for Metabolic Neuroimaging

RUSH Diagnostic Radiology Philanthropy Fund

**Award Amount: \$325,000**

- 2012-2015** 'On-Call' Video Visit Telemedicine Initiative of McHenry County.  
**Competitive Funding Source:** McHenry Cty. Mental Health Board **Award Amount:** \$163,500
- 2010-2012** Synthesis of a technetium labeled carbon nanotube-interleukin-13 ligand complex for electric field-guided targeting of high-grade astrocytoma cells in a xenograft rat model: A precursor to therapeutic delivery of targeted ultra-high charge nano-ablative therapy. Philanthropy/Institutional/Dept of RUSH Brain Tumor Fund **Award Amount:** \$50,000
- 2007-2010** Terminating the ictal onset: On-Demand microbolused intracerebral delivery of RWJ-333369 with responsive neurostimulation. (Principal Investigator).  
**Competitive Funding Source:** Johnson & Johnson R&D. **Award Amount:** \$101,920

### Awards

- 2019** Angel Wings Annual Award for Patient Advocacy
- 2018** Epilepsy Foundation of Greater Chicago Annual Hero Award for Inspirational Commitment
- 2015** Highest 10<sup>th</sup> Percentile Nationally for Quality of Communication with Patients Recognition Award
- 2013** Outstanding Clinical Preceptor of the Year, Rush Dept of Neurological Sciences
- 2011** Danny Did Foundation Award of Excellence for Emerging Seizure Detection Technologies.  
<http://www.facebook.com/pages/Emfit-Corp/276423057077>
- 2004** Mauryne Christensen Award. This award is given annually to a physician that goes beyond the "call of duty" in the treatment of children
- 1999-2000** Faculty elected chief resident: University of Chicago Neurology Residency Training Program
- 1995** Outstanding Student Award in Neuroscience Research. Awarded by the Department of Neurological Sciences, Rush Medical College
- 1995** Student Neuroscience Research Award presented at Chicago Chapter of Society for Neuroscience

### Educational & Referee Responsibilities

- 2018-2020** Pre-doctoral external advisor for PhD candidate, Biswajit Maharathi, UIC Dept Bioengineering
- 2017-2019** Pre-doctoral primary advisor for PhD candidate, Dahleh A, RUSH Graduate College, IBS Program
- 2015-2016** Pre-doctoral primary advisor for PhD candidate, Timothy Harris, IIT Dept Bioengineering
- 2015-2019** Pre-doctoral primary advisor for PhD candidate, Leopoldo Cendejas-Zaragoza, IIT Bioengineering
- 2014-2016** Pre-doctoral external advisor for PhD candidate, Spencer Brinker, UIC Dept Mech Engineering
- 2013-2015** Pre-doctoral external advisor for PhD candidate, Eric Leushen, UIC Dept Bioengineering
- 2014** Invited Special Issue Guest Editor for the peer-reviewed journal, **Neurological Research**.
- 2007-2009** Pre-doctoral external advisor for MD, PhD candidate, Ananda Fine, UIC Dept Bioengineering
- 2012-2018** Contributing Editor for the journal, **Epilepsy Currents**.
- 2012-2019** Committee member: 1. Rush Univ Med Center Pharmacy Committee
- 2011-2013** National Science Foundation Research Experiences for Undergraduate (REU) Program Mentor in association with University of Illinois Dept of Bioengineering. NSF Grant EEC 0754590.
- 2011** Program board member and reviewer for The 4th International Congress on Image and Signal Processing & International Conference on Biomedical Engineering and Informatics. Shanghai, China.
- 2010-2011** NASA Tech Briefs "Create the Future" Design Contest Judge  
<http://contest.techbriefs.com/component/content/article/1119>
- 2009-** *Ad Hoc* Reviewer for the following journals: 1. **Journal of Neurochemistry**  
 2. **Epilepsy Research**  
 3. **Neurological Research**  
 4. **Neurology**
- 2009-2018** Biophysics & Nanotech Translational Core Student Summer Curriculum (Founder & Organizer)
- 2008-2012** Weekly RUSH Epilepsy Group Research Meeting (Organizer & Facilitator)
- 2011-2014** Clinical Neurophysiology instructor for pediatric electroencephalography interpretation,

- 2005-2008** J.H. Stroger Cook County Hospital  
**1999-2000** Co-organizer of the academic curriculum for the University of Chicago Neurology Residency (as faculty-elected chief resident).  
**1990-1994** Teaching Assistant, Medical Physiology 451 & 452, Rush Medical College  
**1989-1992** Rush Medical College Dean's Office Tutor program: Medical Pharmacology & Physiology

#### **Selected Computer Languages**

**Proficient in:** C/C++, COMSOL Multiphysics electromagnetics modeling platform, Unix (SGI), MATLAB, signal processing programming, OpenGL (3D Graphics modeling language/tool), SKED, (animal behavioral task design language), PL/1 (integrated language within RS/1 statistical software), Toolbook (multimedia rapid application development tool/language).

#### **Selected Basic Laboratory Skills**

**Expert in:** receptor binding autoradiography & receptor-ligand kinetics, nanoparticle zeta potential elucidation, nanotube conjugation chemistry, FTIR spectroscopy, colorimetric fluorescent immunohistochemistry, iontophoresis, 1D/2D polyacrylamide gel electrophoresis, Western blotting, affinity chromatography, cell culture, rodent stereotactic surgery using evoked potential guided high-density microelectrode placement, extracellular electrophysiology (long-term potentiation & kindling rodent models).

#### **Selected Extramural Presentations/Lectures**

- Mar 2021** Invited Symposium Chair & Lecturer: **From Genetics to Genomics: Achieving Precision Medicine in Pediatric Epilepsies.** Chicago Society for Neuroscience Meeting.
- Dec 2020** Invited Symposium Lecturer: **Epilepsy in the Times of COVID: Tips & Tricks for Telehealth Visits in Epilepsy.** American Epilepsy Society Annual Meeting.
- Apr 2020** Invited Webinar Lecturer: **Telehealth in Epilepsy Part 2: Putting Guidelines into Practice.** American Epilepsy Society Ask the Expert Webinar Series.
- Apr 2020** Invited Webinar Lecturer: **Telehealth for Epilepsy: Overcoming Obstacles.** American Epilepsy Society Ask the Expert Webinar Series.
- Dec 2019** Invited Lecturer: **Neuromodulation 101: Annual Neurology Review Course. Chicago, IL.**
- May 2018** Invited Lecturer: **Brain Stimulation Think Tank VI, University of Florida Center for Movement Disorders & Neurorestoration:** Parametric Subtracted Post-Ictal DTI. Atlanta, GA.
- July 2017** Invited Lecturer: **Mayo Clinic Grand Rounds: White Matter Connectivity Planning for Modulating the Epileptogenic Circuit: Does it Matter?**
- Mar 2016** Invited Lecturer: **Brain Stimulation Think Tank IV, University of Florida Center for Movement Disorders & Neurorestoration:** Should We Apply Techniques Used in Epilepsy to Other Neuromodulation Indications?
- Jan 2016** Invited Lecturer: **Northwestern University Epilepsy Lecture Series: Enhancing Epileptic Circuit Targeting for Optimizing RNS Therapy?**
- Aug 2015** Invited Lecturer: **University of Illinois at Chicago (NSF/RET Program):** Fundamentals of Mapping and Modulating 'Fragile Neural Networks'
- Mar 2015** Invited Lecturer: **Brain Stimulation Think Tank III, University of Florida Center for Movement Disorders & Neurorestoration:** Mapping, Modulating & Validating the Electrode-Epileptic Circuit Interface: Evolution of a Depth Electrode Placement Planning System for Refractory Epilepsy

- Oct 2014** Invited Lecturer: **Tecnologico De Monterrey School of Engineering, Mexico City, Mexico:**
1. Neuroengineering/Medical Imaging & Bioinstrumentation Courses:
  2. Introduction to Bioengineering Course: Enhancing Epileptic Circuit Targeting for Optimizing Neurostimulation Therapy
  3. Optimizing Neuromodulation Therapy: A Case Study Emphasizing a Collaboration Between Bioengineers & Clinicians
  4. Faculty Lecture: Interfacing with Fragile Neural Networks: Developing Mapping & Modulating Technologies for Intractable Epilepsy
- Aug 2014** Invited Lecturer: **University of Illinois at Chicago (NSF/RET Program):** Brain Computer Interfaces and Nanotechnology: Bridging the Great Divide
- Aug 2013** Invited Lecturer: **University of Illinois at Chicago (NSF/RET Program):** Fundamentals of Cutting-Edge Metabolic Imaging in Epilepsy: Seeing the Circuit
- June 2012** Invited Lecturer: **University of Illinois at Chicago (NSF/REU Program):** Nanotechnology for Treating Epilepsy and Brain Cancer
- Jan 2012** Invited Lecturer as a Dartmouth Visiting Radiology Professor: **Dartmouth/Hitchcock Medical Center (Radiology Grand Rounds):** 1) Ictal SPECT: Improving Epileptic Circuit Targeting? 2) Detecting the Epileptic Circuit with DTI.
- June 2011** Invited Lecturer: **University of Illinois at Chicago (NSF/REU Program):** Electric-Guided Nanocarrier-Drug Therapy for Refractory Epilepsy: Are We On the Right White Matter Track?
- May 2011** Invited Lecturer: **University of Wisconsin at Madison, Grand Rounds:** Electric Field-Guided Charged Nanocarrier-Drug Complexes for the Treatment of Refractory Epilepsy.
- Dec 2009** Invited Lecturer: **American Epilepsy Society Engineering Special Interest Group (Boston, MA):** Subtraction Ictal SPECT: Improving Epileptic Source Targeting?
- Dec 2008** Platform Presentation: **American Epilepsy Society (Seattle, WA):** Subtracted Activated SPECT Validates Depth Lead Placement in White Matter for Responsive Neurostimulation Therapy.
- May 2008** Invited Lecturer: **Center for Integrative Neuroscience and Neuroengineering (Chicago, IL):** Stabilizing the Epileptic Circuit: Targeting White Matter to Interface Direct Cortical Stim Therapy.
- Oct 1993** Invited Lecturer: **Bolt Beranek and Newman Worldwide Software Meeting (Cambridge, MA):** A user-friendly software application programmed in RPL (PL/1) to mathematically analyze brain region-specific receptor-ligand binding properties.
- Aug 1989** Invited Lecturer: **Baxter Pharma, Deerfield, IL.** The effects of branched chained amino acids on induction of glutamate dehydrogenase impeding glutamate toxicity in experimentally induced SE.

#### **Poster Presentations (as Principal Presenter)**

- Dec 2018** Poster Presentation, **American Epilepsy Society: Rossi MA, Monica N, Kelley K, Flores Y, Arana B, Garibay-Pulido D, Cendejas-Zaragoza L, Maschino M, Dahleh A, Slack B.** A population health rural ambulatory care (PHRAC) model for impacting refractory epilepsy & co-morbid mood disorders. AES Abstr. 2018.
- Dec 2017** Poster Presentation: **American Epilepsy Society: Rossi MA, Monica N, Kelley K, Flores Y, Arana B, Garibay-Pulido D, Cendejas-Zaragoza L, Slack B.** A rural mobile health population health management delivery model for impacting refractory epilepsy and co-morbid mood disorders. AES 2017.

- Dec 2015** Poster Presentation, **American Epilepsy Society (Philadelphia, PA): Rossi MA**, Monica N, Babiarz K, Cendejas Zaragoza L, Caicedo M, Endres J (2015). A mobile health-intensive care delivery model for amplifying outreach for refractory epilepsy and co-morbid mood disorders (Part II).
- Dec 2014** Poster Presentation, **American Epilepsy Society (Seattle, WA): Rossi MA**, Monica N, Babiarz K, Cendejas, L, Hanson R, Tshionyi M, Endres J, Jain M. (2014). A mobile health-intensive comprehensive care delivery model for amplifying outreach for refractory epilepsy and co-morbid mood disorders.
- Dec 2013** Poster Presentation, **American Epilepsy Society (Washington, DC): Rossi MA**, Ehrens D, Monica N. Population health management (PHM) for refractory epilepsy and psychiatric co-morbidities: Deploying a PHM delivery model for amplifying patient outreach. **AES Abstr 2.281.**
- Dec 2012** Poster Presentation, **American Epilepsy Society (San Diego, CA): Rossi MA**, Krug K. Improved localization of extra-temporal ictal onset-associated blood flow changes using a 72-detector focused collimator ring SPECT scanner system. **AES Abstr. 1.182.**
- Dec 2011** Poster Presentation, **American Epilepsy Society: Rossi MA**, Pylypyuk V, Krug K (2011). Time-lapsed transient brain blood flow changes demonstrated during delivery of direct stimulation therapy through depth leads implanted at the hippocampal grey-white matter junction. **AES Abstr. 2.197.**
- Dec 2010** Poster Presentation, **American Epilepsy Society: Mangubat EZ, Rossi MA** (2010). On-demand pulsatile delivery of carisbamate concurrent with closed-loop direct neurostimulation therapy in a self-sustained limbic status epilepticus (SSLSE) rat model. **AES Abstr 3.064.**
- Dec 2009** Poster Presentation, **American Epilepsy Society: Rossi MA, Graf O**, Hoepfner TJ, Stebbins G, Byrne RW, Stoub T, Stein MA, Bergen D, Balabanov A, Kanner AM, Smith MC (2009). Subtracted activated SPECT (SAS) validates propagation of direct neurostimulation therapy in double band heterotopia white matter. **AES Abstr 3.001.**
- Dec 2007** Poster Presentation, **American Epilepsy Society (Philadelphia, PA):** Development of an intracranial lead placement planning system for strategically influencing the epileptic circuit. **AES Abstr**
- Dec 2006** **Rossi MA**, Hoepfner T.J., Kanner A.M., Byrne R., Balabanov A., Palac S., Smith M.C. (2006). Preoperative depth lead placement planning to activate distant cortex replicates visual aura semiology during responsive neurostimulation. **AES Abstr 1.103.**
- Dec 2006** Poster Presentation, **American Epilepsy Society (San Diego, CA):** Preoperative depth lead placement planning to activate distant cortex replicates visual aura semiology during responsive neurostimulation. **AES Abstr 1.103.**
- Dec 2005** Poster Presentation, **American Epilepsy Society (Washington, DC): Rossi, MA**, Hoepfner, T.J., Kanner, A.M., Byrne, R., Balabanov, A., Palac, S., Smith, M.C. Noninvasive presurgical estimation of cortical activation for optimizing intracranial electrode placement for responsive neurostimulation in refractory epilepsy. **Abstr 3.169. Epilepsia s8:335.**
- Dec 2005** Poster Presentation, **American Epilepsy Society (Washington, DC): Rossi, MA**, Stoub, T., Hoepfner, T.J., Kanner, A.M., Byrne, R., Balabanov, A., Palac, S., Bergen, D., Smith, M.C. Solving the forward solution for pediatric frontal lobe epileptic sources by seeding the source localization algorithm with coordinates derived from SISCOM data. **American Epilepsy Society, AES Abstr 2.475.**
- Dec 2004** Poster Presentation, **American Epilepsy Society (New Orleans, LA): Rossi, MA**, Kanner, A.M., Hoepfner, T.J., Bergen, D., Palac, S., Smith, M.C. Localization of the ictal onset zone utilizing sphenoidal versus inferior scalp electrodes and dipole source localization analyses. **AES Abstr 1.169.**

- Dec 2002** Poster Presentation, **American Epilepsy Society (Seattle, WA): Rossi, MA**, Hoepfner, T.J., Bergen, D., Kanner, A.M., Smith, M.C. Methohexital suppression augments scalp dipole source localization modeling of complex interictal epileptiform discharges. **AES Abstr 1.131.**
- Nov 1998** Poster Presentation, **Society for Neuroscience (Los Angeles, CA): Rossi, MA**, deToledo-Morrell, L., Mash, D.C., Morrell, F. Spatial memory-impaired aged F344 rats show a deficit in the distribution of PKC-gamma as it relates to G-protein coupling of the M1 receptor.
- Nov 1996** Poster Presentation, **Society for Neuroscience (Washington, DC): Morrell, F., Rossi, MA**, deToledo-Morrell, L. (1996) A deficit in the redistribution of protein kinase C (PKC) in aged F344 rats is related to an impairment in spatial working memory.
- Nov 1994** Poster Presentation, **Society for Neuroscience (Washington, DC): Rossi, M.**, deToledo-Morrell, L., Morrell, F., Mash, D.C. (1994). Age-associated uncoupling of G-protein dependent high affinity M1 muscarinic receptors in F344 rats. **Soc. Neurosci. Abstr 20(1):393.**
- Nov 1993** Poster Presentaton, **Society for Neuroscience (Washington, DC): Rossi, M.**, deToledo-Morrell, L., Morrell, F. A novel method to relate optical density of PKC isoform antibody staining of hippocampal sections to known PKC epitope concentrations using avidin-biotin-peroxidase (ABP) immunohistochemistry on nitrocellulose film slides. National Poster Presentation.

### **Bibliography (Trainee Underlined)**

#### **Book Chapters**

- 1. Rossi MA.** Evolution of neurostimulation therapy in epilepsy. In: *Modulating Epileptic Circuits*. **MA Rossi (ed.)**. Springer Publishing (in preparation).
- 2. Cendejas L, Rossi MA.** Predicting epileptogenic pathways for interfacing direct brain stimulation therapy. In: *Modulating Epileptic Circuits*. **MA Rossi (ed.)**. Springer Publishing (in preparation).
- 3. Rossi MA**, Krug K, Pylypyuk V. Novel ictal SPECT techniques for neuromodulation therapy. In: *Modulating Epileptic Circuits*. **MA Rossi (ed.)**. Springer Publishing (in preparation).
- 4. Rossi MA.** The economics of neuromodulation in the era of healthcare reform In: *Modulating Epileptic Circuits*. **MA Rossi (ed.)**. Springer Publishing (in preparation).
- 5. Rossi MA.** Evolution of telehealth and population health management: Efficient community-based care? In: *Mobile Health in Epilepsy: Outreach Strategies for Regional and Global Healthcare*. **MA Rossi (ed.)** Springer Publishing (in preparation).
- 6. Rossi MA.** Mobile monitoring from implantable EEG to ‘ambulatory avatar monitoring’ In: *Mobile Health in Epilepsy: Outreach Strategies for Regional and Global Healthcare*. **MA Rossi (ed.)**. Springer Publishing (in preparation).
- 7. Kanner AM, Rossi MA, Smith MC.** (2008). LKS case studies. In, *Epilepsy Surgery* H. Luders (ed.). Elsevier Publishing.

#### **Peer-Reviewed Journal Articles**

- 8. Zheng W, Reddy GKM, Dai, F, Chandramani A, Brang D, Hunter S, Kohrman MH, Rose S, Rossi M, Tao J, Wu S, Byrne R, Frim DM, Warnke P, Towle VL.** Chasing Language Through the Brain: Successive Parallel Networks. **Clin Neurophysiol** 2020; (In press).
- 9. Nunna RS, Borghei A, Brahimaj BC, Lynn F, Garibay-Pulido D, Byrne RW, Rossi MA, Sani S.** Responsive Neurostimulation of the Mesial Temporal White Matter in Bilateral Temporal Lobe Epilepsy. **Neurosurgery**, 2020; nyaa381, <https://doi.org/10.1093/neuros/nyaa381>



10. Hatcher-Martin JM, Adams JL, Anderson ER, Bove R1, Burrus TM, Chehrena M, Dolan O'Brien M, Eliashiv DS, Erten-Lyons D, Giesser BS, Moo LR, Narayanaswami P, **Rossi MA**, Soni M, Tariq N, Tsao JW, Vargas BB, Vota SA, Wessels SR, Planalp H, Govindarajan R. Telemedicine in neurology: Telemedicine Work Group of the American Academy of Neurology update. **Neurology** 2020 Jan 7;94(1):30-38. <http://doi.10.1212/WNL.00000000000008708>. Epub 2019 Dec 4
11. Gariaby-Pulido D, Cendejas-Zaragoza L, **Rossi MA** (2018). Parametric Post-ictal Subtracted DTI. **Hippocampus**
12. **Rossi MA** (2017). The Malrotated Hippocampal Formation: How Often Must We Judge Function by Shape? **Epilepsy Currents** 17(2):88-90. <http://dx.doi.org/10.5698/1535-7511.17.2.88>
13. Cendejas Zaragoza L, Byrne RW, **Rossi MA** (2017). Pre-implant modeling of depth lead placement in white matter for maximizing the extent of cortical activation during direct neurostimulation therapy. **Neurological Res.** <http://dx.doi.org/10.1080/01616412.2016.1266429>
14. Wissam Deeb, James J Giordano, Peter Justin Rossi, Alon Mogilner, Aysegul Gunduz, Jack William Judy, Bryan T. Klassen, Christopher R. Butson, Craig van Horne, Damiaan Denys, Darin D Dougherty, David Rowell, Greg A Gerhardt, Gwenn S. Smith, Harrison C. Walker, Helen M Bronte-Stewart, Helen S. Mayberg, Howard J. Chizeck, Jean-Philippe Langevin, Jens Volkmann, Jill Ostrem, Jonathan B Shute, Joohi Jimenez-Shahed, Kelly Douglas Foote, **Marvin A Rossi**, et al. (2016). Proceedings of the Fourth Annual Deep Brain Stimulation Think Tank - A Review of Emerging Issues and Technologies. **Frontiers in Integrative Neuroscience** 10(38):1-21. <https://doi.org/10.3389/fnint.2016.00038>
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16. Rossi J, Gunduz A, Judy J, Wilson L, Machado A, Giordano JJ, Elias WJ, Alterman RL, **Rossi MA** et al (2016). The Third Annual Deep Brain Stimulation Think Tank: A Review of Emerging Issues and Technologies. **Frontiers in Neuroscience, Section Neuroprosthetics** 10:119-125. <http://dx.doi.org/10.3389/fnins.2016.00119>
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### Professional Organizations

- 2015 Organization for Human Brain Mapping  
 2015 American Neurological Association  
 2010-2019 American Chemical Society, full member  
 2002-present American Epilepsy Society, full member  
 1999-present American Academy of Neurology  
 1994-2018 Illinois State Medical Society  
 1995-present Chicago Chapter: Society for Neuroscience  
 1994 New York Academy of Sciences  
 1992-2018 International Brain Research Organization (IBRO)

### Non-Profit Organizations/Foundation

- 2017-2023 Elected to the Board of Directors (2-terms), ROW Foundation. <http://www.rowpharma.org>.  
 2018-2022 Elected to the Board of Directors, Chicago Chapter Society for Neuroscience  
 2018-2019 Elected to the Board of Directors, Epilepsy Foundation of North Central Illinois  
 2013-2021 Co-founder: Epilepsy Health Management (EHM), 501c3 Organization  
 2016-2019 Co-founder & Medical Director: Brain Injury Health Management of McHenry County  
 2011-present Elected Professional Advisory Board Member, Epilepsy Foundation of Greater Chicago  
 2010-2019 Co-founder: the Northern Illinois Epilepsy Outreach Collaborative: Epilepsy Foundation of North Central Illinois & McHenry County Mental Health Board & Rush University Medical Center  
 2010 Inaugural Medical Advisor for the Danny Did Foundation. <http://www.dannydid.org/>

### Industry

- 2020- Speaker Bureau: XCopri, SK Life Sciences  
 2021- Speaker Bureau: LivaNova  
 2007-present Medical Director, Sleepmed Digitrace EEG, State of Illinois  
 1994-present Founder & President, SynapticOM, Inc <http://www.synapticom.net>