BIOGRAPHICAL SKETCH

NAME ANDRE RUSSOWSKY BRUNONI, MD, PhD	POSITION TITLE Coordinator, Service of Interdisciplinary Neuromodulation, University of São Paulo, São Paulo, Brazil	
H-factor: 21 Citations: 2157 Publications (PubMed): 103	Coordinator, Interdisciplinary Center for Applied Neuromodulation, University of São Paulo, São Paulo, Brazil	

EDUCATION/TRAINING

INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
University of São Paulo, São Paulo, Brazil University of São Paulo, São Paulo, Brazil University of São Paulo, São Paulo, Brazil	M.D. Residency Residency	1999-2004 2005-2007 2007-2010	Medicine Internal Medicine Psychiatry
University of São Paulo, São Paulo, Brazil	PhD	2010-2012	Neurosciences and Behavior
Spaulding Rehabilitation Hospital, Harvard Medical School, Boston, MA	Fellowship	2011-2012	Clinical Neuromodulation

Personal statement

As a clinical psychiatrist and researcher in non-invasive brain stimulation (NIBS), I investigate the therapeutic, biological and mechanistic effects of NIBS techniques in normal behavior and mental disorders. I have recently provided substantial evidence that a novel NIBS technique – transcranial direct current stimulation (tDCS) – is a promising treatment for major depression, alone or in combination with sertraline (Brunoni et al., 2013, JAMA Psychiatry).

Presently, I am the Coordinator of two NIBS centers in two of the main hospitals of the University of São Paulo, which is ranked as the premiere research university in Brazil. I have expertise in different brain stimulation techniques, such as tDCS, repetitive and "deep" transcranial magnetic stimulation and measurements of motor cortical excitability, as well as in the design and direction of NIBS phase II and III trials.

I am currently leading a team of psychiatrists and neuropsychologists in 3 clinical trials – a non-inferiority trial comparing the effects of tDCS vs. escitalopram in major depression, and two randomized, sham-controlled, double-blinded trials using tDCS and "deep TMS" as treatments for bipolar depression (http://clinicaltrials.gov/ct2/results?term=brunoni). I am also a co-PI in 2 double-blind trials investigating the efficacy of tDCS in the negative symptoms of schizophrenia and obsessive-compulsive disorder. These trials aim to provide clinical evidence for these treatments, as well as to investigate its mechanisms of action through the collection of clinical, psychological, neuropsychological, genetic, epigenetic, protein expression, neurophysiological and neuroimaging data.

A. Positions

Current

2012-present: Coordinator, Interdisciplinary Center for Applied Neuromodulation, University Hospital, University of São Paulo, Brazil. 2013-present: Coordinator, Service of Interdisciplinary Neuromodulation, Institute of Psychiatry, Clinics Hospital, University of São Paulo, Brazil.

2013-present: Researcher, Laboratory of Neurosciences (LIM-27), Department and Institute of Psychiatry, Clinics Hospital, University of São Paulo, Brazil.

2015-present: Coordinator, Mood Disorders Program, Department and Institute of Psychiatry, Clinics Hospital, University of São Paulo, Brazil.

Prior

2003-2004: Intern, Medicine, University of São Paulo Medical School.

2005-2007: Resident, Internal Medicine, Clinics Hospital, University of São Paulo Medical School.

2007-2010: Resident, Psychiatry, Clinics Hospital, University of São Paulo Medical School.

2009-2012: PhD student, Department of Neurosciences and Behavior, Institute of Psychology, University of São Paulo. Supervisor: Prof. F. Fregni.

2011-2012: Short term Research Scholar in Neuromodulation; Laboratory of Neuromodulation; Spaulding Rehabilitation Hospital; Harvard Medical School.

2009-2015: Research Associate, University Hospital, University of São Paulo.

B. Honors

2007: Selected to participate in the Program "Young psychiatrists" from the Brazilian Association of Psychiatry.

2008: Award for Outstanding participation in the program "Scholars in Clinical Science", from the Department of Continuing Education of Harvard Medical School.

2009: Travel Grant Award from the Department and Institute of Psychiatry of the University of São Paulo to participate in the Congress of WFSBP, Paris, France.

<u>2011:</u> Travel Grant Award for Young Researchers from the World Federal Society of Biological Psychiatry (WFSBP) to participate in the Congress of WFSBP, Prague, Czech Republic.

2011: Travel Grant Award from the University of São Paulo to participate in the Congress of WFSBP, Prague, Czech Republic.

2013: Travel Grant Award from the National Council for Scientific and Technological Development to participate in the Society of Neuroscience Meeting in San Diego, CA.

2013: Young Investigator grant award, Brain and Behavior Research Foundation (NARSAD).

2013: Young Researcher grant award, São Paulo Research State Foundation (FAPESP).

2015: Travel Grant Award for Young Researchers from the World Federal Society of Biological Psychiatry (WFSBP) to participate in the Congress of WFSBP, Athens, Greece.

C. Selected Peer-reviewed Publications (out of 103 publications in PubMed / Medline)

2008

BRUNONI, A. R., BOGGIO, P. S. & FREGNI, F. (2008) Can the 'yin and yang' BDNF hypothesis be used to predict the effects of rTMS treatment in neuropsychiatry? *Med Hypotheses*, 71, 279-82.

BRUNONI, A. R., LOPES, M. & FREGNI, F. (2008) A systematic review and meta-analysis of clinical studies on major depression and BDNF levels: implications for the role of neuroplasticity in depression. *Int J Neuropsychopharmacol*, 11, 1169-80.

2009

BRUNONI, A. R., FRAGUAS, R. & FREGNI, F. (2009) Pharmacological and combined interventions for the acute depressive episode: focus on efficacy and tolerability. *Ther Clin Risk Manag*, 5, 897-910.

BRUNONI, A. R., LOPES, M., KAPTCHUK, T. J. & FREGNI, F. (2009) Placebo response of non-pharmacological and pharmacological trials in major depression: a systematic review and meta-analysis. *PLoS One*, 4, e4824.

BRUNONI, A. R., NAKATA, A. C., TUNG, T. C. & BUSATTO, G. F. (2009) Vitamin D-resistant rickets type II-A, basal ganglia calcification, and catatonia: a casual or causal relationship? *Psychosomatics*, 50, 420-4.

2010

BRUNONI, A. R., CORREA, C. F., IMAMURA, M., TENG, C. T., BRASIL-NETO, J. P., BOEACHAT, R., ROSA, M., CARAMELLI, P., COHEN, R. B., DEL PORTO, J. A., BOGGIO, P. S. & FREGNI, F. (2010) Neuromodulation approaches for the treatment of major depression: challenges and recommendations from a working group meeting. *Arquivos de Neuropsiquiatria*.

BRUNONI, A. R. & CYSNEIROS, R. M. (2010) Lower mRNA BDNF expression in lymphocytes: endophenotype or epiphenomenon for major depression? *Prog Neuropsychopharmacol Biol Psychiatry*.

BRUNONI, A. R. & FREGNI, F. Accelerating response to antidepressant treatment in depression: a review and clinical suggestions. *Prog Neuropsychopharmacol Biol Psychiatry*, 34, 437-8; author reply 439-40.

BRUNONI, A. R., TADINI, L. & FREGNI, F. (2010) Changes in clinical trials methodology over time: a systematic review of six decades of research in psychopharmacology. *PLoS One*, 5, e9479.

COGIAMANIAN, F., **BRUNONI**, **A. R.**, BOGGIO, P. S., FREGNI, F., CIOCCA, M. & PRIORI, A. (2010) Non-invasive brain stimulation for the management of arterial hypertension. *Med Hypotheses*, 74, 332-6.

COHEN, C.*; **BRUNONI**, **A.R.***, BOGGIO, P.S., FREGNI, F. (2010) Clinical predictors associated with duration of rTMS treatment in remitted patients with bipolar depression: a naturalistic study. *J Nervous Mental Dis*.

2011

Baccaro, A; **BRUNONI**, **A.R.**; Bensenor, Isabela Martins; Fregni, Felipe. Hypomanic episode in unipolar depression during transcranial direct current stimulation (2011). Acta Neuropsychiatrica.

BUENO, V.; **BRUNONI**, **A.R.**, BOGGIO, P.S., BENSENOR, I.M., FREGNI, F. (2011) Mood and cognitive effects of transcranial Direct Current Stimulation in post-stroke depression. *Neurocase*

TADINI, L. *; EL-NAZER, R. *; **BRUNONI, A. R.** *; WILLIAMS, J. ; CARVAS, M. ; BOGGIO, P. S. ; PRIORI, A. ; PASCUAL-LEONE, A. ; FREGNI, F. (2011) Cognitive, Mood and EEG effects of noninvasive cortical stimulation with weak electrical currents. *J*

- **BRUNONI, A. R.**; FREGNI, F. (2011) Clinical Trial Design in Noninvasive Brain Stimulation Psychiatric Research. *Int J Meth Psych Res*.
- **BRUNONI**, A.R.; Valim, Clarissa; Fregni, F (2011). Combination of noninvasive brain stimulation with pharmacotherapy *Expert Review of Medical Devices*.
- **Brunoni, A.R.**; Valiengo, Leandro; Baccaro, Alessandra; Zanao, Tamires Araujo; de Oliveira, Janaina Farias; Vieira, Giselly Pereira; Bueno, Viviane Freire; Goulart, Alessandra C.; Boggio, Paulo Sérgio; Lotufo, Paulo Andrade; Bensenor, Isabela; Fregni, F (2011). Sertraline vs. ELectrical Current Therapy for Treating Depression Clinical Trial SELECT TDCS: Design, rationale and objectives. *Contemporary Clinical Trials.*
- **BRUNONI, A.R.**; Amadera, Joao; Berbel, Bruna; Volz, Magdalena Sarah; Rizzerio, Brenno Gomes; Fregni, Felipe. A systematic review on reporting and assessment of adverse effects associated with transcranial direct current stimulation (2011). *International Journal of Neuropsychopharmacology.*
- BRUNONI, A.R.; FERRUCCI, R.; BORTOLOMASI, M.; VERGARI, M.; TADINI, L.; Boggio, P.S.; GIACOPUZZI, M.; Barbieri, S.; Priori, A.. Transcranial direct current stimulation (tDCS) in unipolar vs. bipolar depressive disorder (2011). Progress in Neuro-Psychopharmacology & Biological Psychiatry
- **BRUNONI**, **A.R.**; FREGNI F. Clinical trial design in non-invasive brain stimulation psychiatric research (2011). Int J Methods Psychiatr Res 20(2):e19-30.
- **BRUNONI**, A.R.; FREGNI, F; PAGANO RL. Translational research in transcranial direct current stimulation (tDCS): a systematic review of studies in animals (2011). *Rev Neurosci* 22(4): 471-81.
- **BRUNONI**, A.R., VALIENGO, L; ZANATO, T; DE OLIVEIRA JF; BENSENOR IM, FREGNI F. Manic psychosis after sertraline and transcranial direct current stimulation (2011). *J Neuropsychiatry Clin Neurosci* 23(3): E4-5.
- LADEIRA A; FREGNI F; CAMPANHÃ C; VALASEK CA; DE RIDDER D; **BRUNONI AR**; BOGGIO PS. Polarity-dependent transcranial direct current stimulation effects on central auditory processing. (2011) PLoS One 6(9): e25399.
- **BRUNONI AR;** BENSENOR IM, ALVES TCTA. Therapeutic interventions for vascular depression: a systematic review. *Revista Brasileira Psiquiatria 2011*.

2012

- **1. BRUNONI AR;** NITSCHE MA; BOLOGNINI N; BIKSON M; WAGNER T; MERABET L; EDWARDS DJ; VALERO-CABRE A; ROTENBERG A; PASCUAL-LEONE A; FERRUCCI R; PRIORI A; BOGGIO PS; FREGNI F. Clinical research with transcranial direct current stimulation (tDCS): Challenges and future directions. *Brain Stimul 2012*.
- 2. LOTUFO PA; VALIENGO L; BENSENOR IM; **BRUNONI AR.** A systematic review and meta-analysis of Heart Rate Variability in epilepsy and antiepileptic drugs. *Epilepsia 2012*.
- **3. BRUNONI AR;** LOTUFO PA; BENSENOR IM. Are antidepressants good for the soul but bad for the matter? Using non-invasive brain stimulation to detangle depression / antidepressants effects on heart rate variability and cardiovascular risk. *Biol Psychiatry*. 2012
- 4. BRUNONI AR, Ferrucci R, Fregni F, Boggio PS, Priori A. Transcranial direct current stimulation for the treatment of major depressive disorder: a summary of preclinical, clinical and translational findings. Prog Neuropsychopharmacol Biol Psychiatry. 2012
- 5. Volz MS, Volz TS, **BRUNONI AR**, de Oliveira JP, Fregni F. Analgesic effects of noninvasive brain stimulation in rodent animal models: a systematic review of translational findings. Neuromodulation. 2012
- 6. Sampaio LA, Fraguas R, Lotufo PA, Benseñor IM, **BRUNONI AR**. A systematic review of non-invasive brain stimulation therapies and cardiovascular risk: implications for the treatment of major depressive disorder. Front Psychiatry. 2012
- 7. BRUNONI AR, Ferrucci R, Bortolomasi M, Scelzo E, Boggio PS, Fregni F, Dell'osso B, Giacopuzzi M, Altamura AC, Priori A. Interactions between transcranial direct current stimulation (tDCS) and pharmacological interventions in the Major Depressive Episode: Findings from a naturalistic study. Eur Psychiatry. 2012
- **8. BRUNONI AR**, Zanao TA, Ferrucci R, Priori A, Valiengo L, de Oliveira JF, Boggio PS, Lotufo PA, Benseñor IM, Fregni F. Bifrontal tDCS prevents implicit learning acquisition in antidepressant-free patients with major depressive disorder. Prog Neuropsychopharmacol Biol Psychiatry. 2012

2019

- **1. BRUNONI AR**, Vanderhasselt MA, Boggio PS, Fregni F, Dantas EM, Mill JG, Lotufo PA, Benseñor IM. Polarity- and valence dependent effects of prefrontal transcranial direct current stimulation on heart rate variability and salivary cortisol. Psychoneuroendocrinology. **2013**
- 2. Shiozawa P, da Silva ME, Raza R, Uchida RR, Cordeiro Q, Fregni F, BRUNONI AR. Safety of Repeated Transcranial Direct Current Stimulation in Impaired Skin: A Case Report. J ECT. 2013
- **3. BRUNONI AR**, Valiengo L, Baccaro A, Zanão TA, de Oliveira JF, Goulart A, Boggio PS, Lotufo PA, Benseñor IM, Fregni F. The Sertraline vs. Electrical Current Therapy for Treating Depression Clinical Study: Results from a factorial, randomized, controlled trial. JAMA Psychiatry 2013.
- 4. Fidalgo TM, Morales-Quezada JL, Muzy GS, Chiavetta NM, Mendonca ME, Santana MV, Goncalves OF, **Brunoni AR**, Fregni F. Biological Markers in Noninvasive Brain Stimulation Trials in Major Depressive Disorder: A Systematic Review. J ECT. 2013
- **5. Brunoni AR**, Kemp AH, Dantas EM, Goulart AC, Nunes MA, Boggio PS, Mill JG, Lotufo PA, Fregni F, Benseñor IM. Heart rate variability is a trait marker of major depressive disorder: evidence from the sertraline vs. electric current therapy to treat depression clinical study. Int J Neuropsychopharmacol. **2013**

6. Brunoni AR, Zanao TA, Vanderhasselt MA, Valiengo L, de Oliveira JF, Boggio PS, Lotufo PA, Benseñor IM, Fregni F. Enhancement of Affective Processing Induced by Bifrontal Transcranial Direct Current Stimulation in Patients With Major Depression. Neuromodulation. 2013 May 24.

- 7. Vanderhasselt MA, De Raedt R, **Brunoni AR**, Campanhã C, Baeken C, Remue J, Boggio PS. tDCS over the left prefrontal cortex enhances cognitive control for positive affective stimuli. PLoS One. 2013
- **8. Brunoni AR**, Kemp AH, Shiozawa P, Cordeiro Q, Valiengo LC, Goulart AC, Coprerski B, Lotufo PA, Brunoni D, Perez AB, Fregni F, Benseñor IM. Impact of 5-HTTLPR and BDNF polymorphisms on response to sertraline versus transcranial direct current stimulation: Implications for the serotonergic system. Eur Neuropsychopharmacol. **2013**
- **9. Brunoni AR**, Machado-Vieira R, Zarate CA, Valiengo L, Vieira EL, Benseñor IM, Lotufo PA, Gattaz WF, Teixeira AL. Cytokines plasma levels during antidepressant treatment with sertraline and transcranial direct current stimulation (tDCS): results from a factorial, randomized, controlled trial. Psychopharmacology (Berl). 2013
- 10. Valiengo LC, Benseñor IM, Lotufo PA, Fraguas R Jr, **Brunoni AR.** Transcranial direct current stimulation and repetitive transcranial magnetic stimulation in consultation-liaison psychiatry. Braz J Med Biol Res. 2013
- 11. Hanson CS, Outhred T, **Brunoni AR**, Malhi GS, Kemp ÅH. The impact of escitalopram on vagally mediated cardiovascular function to stress and the moderating effects of vigorous physical activity: a randomized controlled treatment study in healthy participants. Front Physiol. 2013
- 12. Vanderhasselt MA, **Brunoni AR**, Loeys T, Boggio PS, De Raedt R. Nosce te ipsum--Socrates revisited? Controlling momentary ruminative self-referent thoughts by neuromodulation of emotional working memory. Neuropsychologia. 2013
- 13. Shiozawa P, Leiva AP, Castro CD, da Silva ME, Cordeiro Q, Fregni F, **Brunoni AR.** Transcranial Direct Current Stimulation for Generalized Anxiety Disorder: A Case Study. Biol Psychiatry.
- 14. Brunoni AR, Nunes MA, Figueiredo R, Barreto SM, da Fonseca Mde J, Lotufo PA, Benseñor IM. Patterns of benzodiazepine and antidepressant use among middle-aged adults. the Brazilian longitudinal study of adult health (ELSA-Brasil). J Affect Disord. 2013 15. Shiozawa P, da Silva ME, Cordeiro Q, Fregni F, Brunoni AR. Transcranial direct current stimulation (tDCS) for catatonic schizophrenia: a case study. Schizophr Res. 2013

2014

- **1. Brunoni AR**, Vanderhasselt MA. Working memory improvement with non-invasive brain stimulation of the dorsolateral prefrontal cortex: A systematic review and meta-analysis. Brain Cogn. 2014 Feb 7;86C:1-9.
- 2. Soeiro-de-Souza MG, Gold PW, **Brunoni AR**, Sousa RT, Zanetti MV, Carvalho AF, Gattaz WF, Machado-Vieira R, Teixeira AL. Lithium Decreases Plasma Adiponectin Levels in Bipolar Depression. Neurosci Lett. 2014 Feb 10.
- 3. Brunoni AR, Nunes MA, Pinheiro AP, Lotufo PA, Benseñor IM. Bereavement and common mental disorders in middle-aged adults: results from the Brazilian longitudinal study of adult health (ELSA-Brasil). J Affect Disord. 2014
- **4. Brunoni AR**, Júnior RF, Kemp AH, Lotufo PA, Benseñor IM, Fregni F. Differential improvement in depressive symptoms for tDCS alone and combined with pharmacotherapy: an exploratory analysis from the Sertraline vs. Electrical Current Therapy for Treating Depression Clinical Study. Int J Neuropsychopharmacol. 2014
- **5.** Brunoni AR, Schestatsky P, Lotufo PA, Benseñor IM, Fregni F. Comparison of blinding effectiveness between sham tDCS and placebo sertraline in a 6-week major depression randomized clinical trial. Clin Neurophysiol. 2014
- 6. Tortella G, Selingardi PM, Moreno ML, Veronezi BP, **Brunoni AR**. Does non-invasive brain stimulation improve cognition in major depressive disorder? A systematic review. CNS Neurol Disord Drug Targets. 2014 Nov 30.
- 7. Vanderhasselt MA, De Raedt R, Namur V, Lotufo PA, Bensenor IM, Boggio PS, **Brunoni AR**. Transcranial electric stimulation and neurocognitive training in clinically depressed patients: A pilot study of the effects on rumination. Prog Neuropsychopharmacol Biol Psychiatry. 2015 Mar 3:57:93-9.
- 8. **Brunoni AR**, Baeken C, Machado-Vieira R, Gattaz WF, Vanderhasselt MA. BDNF blood levels after non-invasive brain stimulation interventions in major depressive disorder: A systematic review and meta-analysis. World J Biol Psychiatry. 2014 Sep 29:1-9.
- 9. Guarienti F, Caumo W, Shiozawa P, Cordeiro Q, Boggio PS, Benseñor IM, Lotufo PA, Bikson M, **Brunoni AR**. Reducing Transcranial Direct Current Stimulation-Induced Erythema With Skin Pretreatment: Considerations for Sham-Controlled Clinical Trials. Neuromodulation. 2014 Sep 11.
- 10. **Brunoni AR**, Machado-Vieira R, Zarate CA Jr, Vieira EL, Valiengo L, Benseñor IM, Lotufo PA, Gattaz WF, Teixeira AL. Assessment of non-BDNF neurotrophins and GDNF levels after depression treatment with sertraline and transcranial direct current stimulation in a factorial, randomized, sham-controlled trial (SELECT-TDCS): an exploratory analysis. Prog Neuropsychopharmacol Biol Psychiatry. 2015 Jan 2;56:91-6. doi: 10.1016/j.pnpbp.2014.08.009. Epub 2014 Aug 27. PubMed PMID: 25172025; PubMed Central PMCID: PMC4258544.
- 11. **Brunoni AR**, Boggio PS, De Raedt R, Benseñor IM, Lotufo PA, Namur V, Valiengo LC, Vanderhasselt MA. Cognitive control therapy and transcranial direct current stimulation for depression: a randomized, double-blinded, controlled trial. J Affect Disord. 2014 Jun;162:43-9.
- 12. **Brunoni AR**, Shiozawa P, Truong D, Javitt DC, Elkis H, Fregni F, Bikson M. Understanding tDCS effects in schizophrenia: a systematic review of clinical data and an integrated computation modeling analysis. Expert Rev Med Devices. 2014 Jul;11(4):383-94. 13. Zanão TA, Moffa AH, Shiozawa P, Lotufo PA, Benseñor IM, **Brunoni AR**. Impact of Two or Less Missing Treatment Sessions on tDCS Clinical Efficacy: Results From a Factorial, Randomized, Controlled Trial in Major Depression. Neuromodulation. 2014 Dec:17(8):737-42.
- 14. Shiozawa P, Fregni F, Benseñor IM, Lotufo PA, Berlim MT, Daskalakis JZ, Cordeiro Q, **Brunoni AR**. Transcranial direct current stimulation for major depression: an updated systematic review and meta-analysis. Int J Neuropsychopharmacol. 2014
- 15. **Brunoni AR**, Machado-Vieira R, Zarate CA Jr, Vieira EL, Vanderhasselt MA, Nitsche MA, Valiengo L, Benseñor IM, Lotufo PA, Gattaz WF, Teixeira AL. BDNF plasma levels after antidepressant treatment with sertraline and transcranial direct current stimulation: results from a factorial, randomized, sham-controlled trial. Eur Neuropsychopharmacol. 2014 Jul;24(7):1144-51.
- 16. **Brunoni AR**, Baeken C, Machado-Vieira R, Gattaz WF, Vanderhasselt MA. BDNF blood levels after electroconvulsive therapy in patients with mood disorders: a systematic review and meta-analysis. World J Biol Psychiatry. 2014 Jul;15(5):411-8.

17. **Brunoni AR**, Machado-Vieira R, Zarate CA, Valiengo L, Vieira EL, Benseñor IM, Lotufo PA, Gattaz WF, Teixeira AL. Cytokines plasma levels during antidepressant treatment with sertraline and transcranial direct current stimulation (tDCS): results from a factorial, randomized, controlled trial. Psychopharmacology (Berl). 2014 Apr;231(7):1315-23.

- 18. Moffa AH, Valiengo L, Shiozawa P, **Brunoni AR**. Novel neurotherapeutics in psychiatry: use and rationale of transcranial direct current stimulation in major depressive disorder. Archives of Clinical Psychiatry. 2014; 41 (1).
- 19. Kemp AH, **Brunoni AR**, Santos IS, Nunes MA, Dantas EM, Carvalho de Figueiredo R, Pereira AC, Ribeiro AL, Mill JG, Andreão RV, Thayer JF, Benseñor IM, Lotufo PA. Effects of depression, anxiety, comorbidity, and antidepressants on resting-state heart rate and its variability: an ELSA-Brasil cohort baseline study. Am J Psychiatry. 2014

2015

- 1. **Brunoni AR**, Pereira Junior BS, Moffa AH, Borrione L, Nogueira BS, Aparicio LVM, Veronezi B, Moreno M, Fernandes RA, Tavares D, Bueno PVS, Seibt O, Bikson M, Fraguas R, Bensenor IM. The Escitalopram versus Electric Current Therapy to treat Depression Clinical Study (ELECT-TDCS): rationale and study design of a non-inferiority, triple-arm, placebo-controlled clinical trial. São Paulo Medical Journal (in press)
- 2. Moreno ML, Vanderhasselt MA, Carvalho AF, Moffa AH, Lotufo PA, Bensenor IM, **Brunoni AR**. Effects of acute transcranial direct current stimulation in hot and cold working memory tasks in healthy and depressed subjects. Neuroscience Letters.
- 3. Drager LF, **Brunoni AR**, Jenner R, Lorenzi-Filho G, Benseñor IM, Lotufo PA. Effects of CPAP on body weight in patients with obstructive sleep apnoea: a meta-analysis of randomised trials. Thorax. 2015
- 4. de Sousa RT, Zanetti MV, Talib LL, Serpa MH, Chaim TM, Carvalho AF, **Brunoni AR**, Busatto GF, Gattaz WF, Machado-Vieira R. Lithium increases platelet serine-9 phosphorylated GSK- 3β levels in drug-free bipolar disorder during depressive episodes. J Psychiatr Res. 2015
- 5. Tortella G, Casati R, Aparicio LV, Mantovani A, Senço N, D'Urso G, Brunelin J, Guarienti F, Selingardi PM, Muszkat D, Junior Bde S, Valiengo L, Moffa AH, Simis M, Borrione L, Brunoni AR. Transcranial direct current stimulation in psychiatric disorders. World J Psychiatry. 2015
- 6. Seibt O, **Brunoni AR**, Huang Y, Bikson M. The Pursuit of DLPFC: Non-neuronavigated Methods to Target the Left Dorsolateral Prefrontal Cortex With Symmetric Bicephalic Transcranial Direct Current Stimulation (tDCS). Brain Stimul. 2015
- 7. Pereira Junior Bde S, Tortella G, Lafer B, Nunes P, Benseñor IM, Lotufo PA, Machado-Vieira R, **Brunoni AR**. The bipolar depression electrical treatment trial (BETTER): design, rationale, and objectives of a randomized, sham-controlled trial and data from the pilot study phase. Neural Plast. 2015
- 8. Senço NM, Ĥuang Y, D'Urso G, Parra LC, Bikson M, Mantovani A, Shavitt RG, Hoexter MQ, Miguel EC, **Brunoni AR**. Transcranial direct current stimulation in obsessive-compulsive disorder: emerging clinical evidence and considerations for optimal montage of electrodes. Expert Rev Med Devices.
- 9. Fregni F, Nitsche MA, Loo CK, **Brunoni AR**, Marangolo P, Leite J, Carvalho S, Bolognini N, Caumo W, Paik NJ, Simis M, Ueda K, Ekhitari H, Luu P, Tucker DM, Tyler WJ, Brunelin J, Datta A, Juan CH, Venkatasubramanian G, Boggio PS, Bikson M. Regulatory Considerations for the Clinical and Research Use of Transcranial Direct Current Stimulation (tDCS): review and recommendations from an expert panel. Clin Res Regul Aff. 2015

Books published

FREGNÎ F; BOGGIO PS; **BRUNONI AR.** Neuromodulação Terapêutica - Princípios e Avanços da Estimulação Cerebral Não Invasiva em Neurologia, Reabilitação, Psiquiatria e Neuropsicologia [Therapeutic Neuromoulation: Principles and Advances of Non invasive brain stimulation in Neurology, Rehabilitation, Psychiatry and Neuropsychology] .1st ed. São Paulo: Sarvier, 2011. v. 1. 570 pages. (In Portuguese)

D. Research Support

Current

FAPESP (São Paulo State Research Foundation), 2013-2017 Grant Number 2012/20911-5, Principal Investigator
Project: Escitalopram vs. Transcranial Direct Current Stimulation to treat depression: a randomized, double-blind, placebo-controlled,

Project: Escitalopram vs. Transcranial Direct Current Stimulation to treat depression: a randomized, double-blind, placebo-controlled, non-inferiority trial. Estimated budget: USD300,000.00

<u>Brain and Behavior (formerly NARSAD) 2013- 2015 Young Investigator Grant Award; Grant Number: 20493, Principal Investigator.</u>
Project: Transcranial direct current stimulation for bipolar depression: a randomized, double-blind, sham-controlled trial. Estimated budget: USD52,300.00.

National Council for Scientific and Technological Development, CNPq 2013-2016, Grant Number 470904, Principal Investigator.

Project: Improvement in transcranial direct current stimulation methodology: focus on sham methods and adverse effects. Estimated Budget: USD8,200.00

Brainsway Research Support, Principal Investigator (2013-2016).

Project: Use of H1-Coil (Deep TMS) in the treatment of bipolar depression: a randomized, sham-controlled trial. Estimated Budget: USD110.000.00

Previous

FAPESP 2009 – 2011 (Public Grant from São Paulo State, Brazil, Grant Number 2009/05728-7). Role: Co-PI. PI: Felipe Fregni. Project: Efficacy study of Transcranial Direct Current Stimulation in Major Depressive Disorder.

FAPESP 2010 – 2011 (Public Grant from São Paulo State, Brazil, Grant Number 2010/09505-0). Role: Co-PI. PI: Isabela M Benseñor. Project: Changes in Heart Rate Variability and Salivary Cortisol with Transcranial Direct Current Stimulation.

CNPq 2010 – 2013 (Public Grant from Brazilian Ministry of Health)

Project: Late-onset depression and cardiovascular comorbidities in elderly patients.

Role: Co-investigator. PI: Leticia Mansur.

FAPESP 2011 – 2012 (Public Grant from São Paulo State, Brazil, Grant Number 2011/00228-6). Role: Co-Advisor. PI: Felipe Fregni. Project: Affective modulation in depression with Transcranial Direct Current Stimulation.

FAPESP 2011 – 2013 (Grant Number 2011/08960-8). Role: Co-investigator. PI: Ana Beatriz Alvarez Perez.

Project: Investigation of BDNF Val66Met polymorphism and 5HTTLPR polymorphism in patients with Major Depression treated with Transcranial Direct Current Stimulation or sertraline.

FAPESP 2011-2013 (Grant Number 2011/07670-6). Role: Co-investigator. PI: Alessandra C. Goulart.

Project: Depression And Alcohol Abuse Among Patients With Acute Coronary Syndrome: Prospective Evaluation In The Erico Study (Strategy Of Registry Of Coronary Heart Disease).

FAPESP 2011-2013 (Grant Number 2011/20562-5). Role: Co-investigator. PI: Alessandra C. Goulart.

Project: Validation of the Portuguese version of the Telephone Interview for Cognitive Status among stroke patients.

FAPESP 2011-2013 (Grant Number 2011/02336-0). Role: Co-investigator. PI: Alessandra C. Goulart.

Project: Depression And Cognitive Impairment After Stroke: Expanded Evaluation In The Study Of Stroke Mortality And Morbidity(Emma), Sao Paulo-Brazil.

E. Editorial Activities

Ad hoc reviewer (selected journals)

Acta Psychiatrica Scandinavica

Journal of Neurology, Neurosurgery and Psychiatry

International Journal of Neuroscience

Contemporary Clinical Trials

European Archives of Psychiatry and Clinical Neuroscience

Neuropsychologia (Oxford)

Progress in NP & Biological Psychiatry

European Neuropsychopharmacology

Journal of Neural Transmission

Plos One

International Journal of Neuropsychopharmacology

International Psychogeriatrics

Clinics

Brain (London)

The Journal of Pain

The World Journal of Biological Psychiatry

JAMA Psychiatry BMC Public Health

CMAJ

Neurobiology of Aging

Biological Psychiatry

European Journal of Neuroscience

CNS Spectrums

Cognition and Emotion

Journal of Clinical Epidemiology

Brain Stimulation

Neuromodulation

Journal of Affective Disorders

Neurorehabilitation and Neural Repair

RBP Psychiatry J Psych Research

Archives of Clinical Psychiatry Neuropsychopharmacology

Clinical Neurophysiology

Associate Editor

Archives of Clinical Psychiatry

Brazilian Journal of Medical and Biological Research.

Frontiers in Neuropsychiatric Imaging and Stimulation.

F. Mentoring

2012-2013: Tamires Zanao, Graduate Student in Psychology, Project: "Impact of tDCS on implicit learning in depression" 2012-2015: Leandro Valiengo, PhD Student, Project: "Transcranial direct current stimulation in the treatment of Post-Stroke depression"

2013-2015: Marina Moreno, Graduate Student in Psychology, Project: "Impact of tDCS on emotional working memory in depression" 2013-present: Beatriz Veronesi, Graduate Student in Psychology, Project: "Cortical excitability in depression: a case-control study".

2014-present: Adriano H Moffa, MSc Student, Project: "Clinical predictors of response of tDCS in major depression"

2014-present: Barbara S Nogueira, MSc Student, Project: "Cloninger Temperament and Character Inventory as a predictor of tDCS response in major depression"

2014-present: Raquel A Fernandes, Graduate Student in Psychology, Project: "Heart Rate Variability and Non-verbal communication in depression patients"

2014-present: Gabriel Tortella, PhD Student, Project: "Neuropsychological evaluation of bipolar depressed patients after tDCS treatment"

2014-present: Bernardo de Sampaio Pereira Junior, PhD Candidate, Project: ""Clinical evaluation of bipolar depressed patients after tDCS treatment"

2014-present: Pedro Gordon, PhD Student, Project: "Cortical excitability in Obsessive-Compulsive Disorder"

2015-present: Marina Moreno, PhD Student, Project: "Neuropsychological evaluation of unipolar depressed patients after tDCS treatment"

G. Invited talks (selected)

- 1. "Optimizing tDCS protocols for the treatment of depression: the role of pharmacology." Minisymposium: Therapeutic Neuromodulation With Transcranial Current Stimulation: Ready for Rational Design? Organized by M. Nitsche, F. Frohlich, Annual Meeting of the Society for Neuroscience, San Diego (USA), 9-13 November 2013.
- 2. "TDCS in Major Depressive Disorder". Seconda giornata nazionale della Stimolazione Transcranica a Correnete Diretta (tDCS) in Psichiatria. Verona, Italy, 18 October, 2013.
- 3. "TDCS in Addiction". Seconda giornata nazionale della Stimolazione Transcranica a Correnete Diretta (tDCS) in Psichiatria. Verona, Italy, 18 October, 2013.
- 4. "TDCS for Major Depression: state-of-the-art and clinical perspectives" First International Forum for New Treatments in Psychiatry. Organized by AG Silva. XXXI Brazilian Congress of Psychiatry. Curitiba, Brazil, 23 October 2013.
- 5. "Depression and Neuromodulation". São Paulo State Congress of Neurology. Guaruja, Brazil, 11 May 2013.
- 6. "Neuroplasticity and Neurorehabilitation", XVII Jornadas Internacionales de Salud. Aguas Calientes, Mexico. 2014.
- 7. "Technical and Mechanistic Foundations of tDCS: Emerging applications in Major Depressive Disorder" Society of Biological Psychiatry, New York, NY, 2014.
- 8. "TDCS as a treatment for Depression "International Society of Neurostimulation and ECT. New York, NY, USA (2014).
- 9. "TDCS in combination with pharmacotherapy to enhance clinical outcomes in depression" NYC tDCS Workshop. New York, NY, USA (2014).
- 10. "Role respectif et complementarite des diferentes techniques de stimulation transcranienne dans les troubles de l'humeur" 9 Journee Scientifique de le section STEP de l'AFPBN.. Nantes, France (2014).
- 11. "Perspectives of tDCS in Psychiatry". NYC Neuromodulation Symposium. New York, NY, USA (2015).
- 12. "Transcranial Direct Current Stimulation for Major Depression: A meta-analysis of individual patient data". Society of Biological Psychiatry. Toronto, ON, Canada, 2015.
- 13. "TDCS in major depressive disorder: Results from randomized clinical trials and follow-up studies". WFSBP Congress. Athens, Greece, 2015.