

## LISTA DE PUBLICAȚII – Cristian Sevcencu

### Articole publicate în reviste de specialitate:

1. Stumpp L, Smets H, Vespa S, Cury J, Doguet P, Delbeke J, Hermans E, **Sevcencu C**, Nielsen TN, Nonclerq A, Tahry RE (2020) Recording of spontaneous vagus nerve activity during Pentylentetrazol-induced seizures in rats, *J Neurosci Methods*, 343:108832. doi: 10.1016/j.jneumeth.2020.108832.
2. **Cristian Sevcencu**, Johannes J. Struijk (2018) Neural markers and implantable bioelectronic systems for the treatment of hypertension, *Bioelectron. Med.*, 1 (2): 139–150
3. **Sevcencu C**, Nielsen TN, Struijk JJ. (2018) An Intraneural Electrode for Bioelectronic Medicines for Treatment of Hypertension, *Neuromodulation*, 21 (8): 777-786.
4. **Sevcencu C**, Nielsen TN, Kjaergaard B, Struijk JJ. (2018) A Respiratory Marker Derived From Left Vagus Nerve Signals Recorded With Implantable Cuff Electrodes, *Neuromodulation*, 21 (3): 269-275.
5. **Sevcencu C**, Jiao J, Harreby KR, Jensen W. (2018) A New Rat Model of Seizures Suitable for Screening Antiepileptic Electrical Stimulation Therapies, *Artif. Organs*, 42 (1): 94-99.
6. **Sevcencu C**, Nielsen TN, Struijk JJ. (2017) A neural blood pressure marker for bioelectronic medicines for treatment of hypertension, *Biosens Bioelectron.* 98:1-6.
7. Kjaergaard, Benedict; **Sevcencu, Cristian**; Magnúsdóttir, Sigríður Olga; Krarup, Henrik Bygum; Nielsen, Thomas Nørgaard. (2017) Recover of peripheral nerve function after prolong hypothermic cardiac arrest in a porcine model with extra corporeal life support, *J. Therm. Biol.*, 64: 41-47.
8. **Sevcencu, Cristian**; Nielsen, Thomas Nørgaard; Struijk, Johannes J. (2016) Changes in vagus nerve activity associated with ictal tachycardia in pigs, *Epilepsy Research*, Vol. 128, 2016, p. 52-60.
9. Jiao J, **Sevcencu C**, Jensen W, Yang X, Harreby KR. (2016) The Influence of Vagus Nerve and Spinal Cord Stimulation on the Ictal Fast Ripple Activity in a Spike-and-Wave Rat Model of Seizures, *Neuromodulation*, Vol. 19, No. 3, p. 292-298.
10. Jiao J, Harreby KR, **Sevcencu C**, Jensen W. (2016) Optimal Vagus Nerve Stimulation Frequency for Suppression of Spike-and-Wave Seizures in Rats, *Artificial Organs*. Vol. 40, No. 6, p. E120-E127.
11. Jiao J, Jensen W, Harreby KR, **Sevcencu C** (2016) The Effect of Spinal Cord Stimulation on Epileptic Seizures. *Neuromodulation*. Vol. 19, No. 2, p. 154-160.
12. Jensen, Ask Schou; Pennisi, Cristian Pablo; **Sevcencu, Cristian**; Christensen, Jørn Bolstad; Kristiansen, Jette Elisabeth; Struijk, Johannes (2015) Differential effects of thioridazine enantiomers on action potential duration in rabbit papillary muscle, *European Journal of Pharmacology*, Vol. 747, p. 7-12.
13. Nielsen T, **Sevcencu C**, Struijk J. (2014) Comparison of Mono-, Bi-, and Tripolar Configurations for Stimulation and Recording with an Interfascicular Interface, *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, 22 (1): 88-95.
14. Nielsen T, **Sevcencu C**, Struijk J. (2012) Fascicle-Selectivity of an Intra-Neural Stimulation Electrode in the Rabbit Sciatic Nerve. *IEEE Transactions on Biomedical Engineering*, 59 (1): 192-197.
15. Harreby KR, **Sevcencu C**, Struijk JJ. (2011) Ictal and peri-ictal changes in cervical vagus nerve activity associated with cardiac effects, *Med Biol Eng Comput*, 49 (9): 1025-1033.
16. Harreby KR, **Sevcencu C**, Struijk JJ. (2011) Early seizure detection in rats based on vagus nerve activity, *Med Biol Eng Comput*, 49(2): 143-151.

17. Harreby KR, **Sevcencu C**, Struijk JJ. (2011) The Effect of Spinal Cord Stimulation on Seizure Susceptibility in Rats, *Neuromodulation*, 14 (2): 111-116.
18. **Sevcencu C**, Struijk, JJ. (2010) Response to commentary by Dr. Parisi, *Epilepsia*, 51 (8): 1644.
19. **Sevcencu C**, Struijk JJ. (2010) Autonomic alterations and cardiac changes in epilepsy, *Epilepsia*, 51 (5): 725-737.
20. Pennisi CP, **Sevcencu C**, Dolatshahi-Pirouz A, Foss M, Hansen JL, Larsen AN, Zachar V, Besenbacher F, Yoshida K. (2009) Responses of fibroblasts and glial cells to nanostructured platinum surfaces, *Nanotechnology*, 20 (38): 385103 (9pp).
21. **Sevcencu C**, Pennisi CP, Yoshida K, Gregersen H. (2008) Simultaneous monitoring of cellular depolarization and contraction – a new method to investigate excitability and contractility in isolated smooth muscle cells, *Am J Physiol Gastrointest Liver Physiol.*, 294 (3): G648-G654.
22. **Sevcencu C.**, Ardelean C., Tarba C., (2007) Electrical and mechanical effects induced by cold temperatures in the ventricle of isolated *Rana ridibunda* hearts, *Comp Biochem Physiol A Mol Integr Physiol*, 148 (1): 196-203.
23. **Sevcencu C.**, (2007) Gastrointestinal mechanisms activated by electrical stimulation to treat motility dysfunctions in the digestive tract: a review, *Neuromodulation*, 10 (2): 100-112.
24. **Sevcencu C.**, (2007) A review of electrical stimulation to treat motility dysfunctions in the digestive tract: effects and stimulation patterns, *Neuromodulation*, 10 (2): 85-99.
25. **Sevcencu C.**, (2006) Electrical stimulation – an evolving concept in the treatment of colonic motor dysfunctions, *Neurogastroenterol Motil*, 18 (11): 960-970.
26. Liao D., **Sevcencu C.**, Yoshida K., Gregersen H., (2006) Viscoelastic Properties of Isolated Rat Colon Smooth Muscle Cells, *Cell Biol Int*, 30 (10): 854-858.
27. **Cristian Sevcencu**, Nico J. M. Rijkhoff and Thomas Sinkjaer, (2005) Colon emptying induced by sequential electrical stimulation in rats, *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, 13 (4): 516-523.
28. **Cristian Sevcencu**, Nico J. M. Rijkhoff, Hans Gregersen and Thomas Sinkjaer, (2005) Propulsive activity induced by sequential electrical stimulation in the descending colon of the pig, *Neurogastroenterol Motil*, 17: 376-387.
29. **Cristian Sevcencu**, Nico J. M. Rijkhoff and Thomas Sinkjaer, (2005) Muscular vs. neural activation in propulsion induced by electrical stimulation in the descending colon of rats, *Neuromodulation*, 8 (2): 131-140.
30. **Sevcencu C.** and Ardelean C. (2000) Effects of low temperatures on the ventricular activity of isolated frog hearts, *Acta Oecologica*, VII (1-2): 145-150.
31. **C. Sevcencu**, A. Patriciu and I. Chiselita, (2000) Original systems for single and double monitoring of some physiological parameters, *Fiziologia-Physiology*, 3 (27): 21-25.
32. Ardelean C. and **Sevcencu C.** (2000) Effects of Digoxin on mechanical parameters of the ventricular contractions recorded in isolated frog hearts, *Studia Universitatis Babes-Bolyai, (Biologia)*, XLV (2): 71-79.
33. **Sevcencu C.** (2000) Parallel monitoring of the carotid pulse and electrocardiography in humans. *Studia Universitatis Babes-Bolyai, (Biologia)*, XLV (2): 65-70.
34. **Sevcencu C.** and Patriciu A. (2000) An original data acquisition system for monitoring the bioelectrical activity of isolated frog hearts, *Studia Universitatis Babes-Bolyai (Biologia)*, XLV (1): 103-112.
35. **C. Sevcencu** (2000) Vagus-mediated decrease of plasma glucose levels in response to insulin injected into the lateral hypothalamus, *Rev. Roum. Biol. (Biol. Anim.)*, 45 (1), 91-101.
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37. **Sevcencu C.** (1999) Electrolytic lesioning of LH blocks the hypoglycemic effect of intrahypothalamic injection of insulin. *Studia Universitatis Babes-Bolyai (Biologia)*, XLIV (1-2): 143-149.
38. **Sevcencu C.** and Sildan N. (1999) Intrahypothalamic injection of insulin does not alter plasma glucose levels in streptozotocin-diabeted rats. *Studia Universitatis Babes-Bolyai (Biologia)*, XLIV (1-2): 135-141.
39. Pop M, **Sevcencu C.** and Sildan N. (1987) Insulin receptors in the lateral hypothalamus and the effects of bilateral vagotomy on their response to adequate stimulation. *Rev. Roum. Biol. (Physiol.)*, 24(2): 105-9.

#### **Brevete de invenție:**

1. **Sevcencu Cristian**, Struijk Johannes J., Nielsen Thomas Nørgaard, Harreby Kristian Rauhe. (2015) Blood pressure estimation based on neural activity. Patent No.: EP2897521.
2. **Sevcencu Cristian**, Struijk Johannes, Nielsen Thomas Nørgaard, Harreby Kristian Rauhe. (2014) Blood pressure estimation based on neural activity. Patent No.: WO2014044283.
3. Struijk JJ, **Sevcencu C** and Harreby KR. (2013) Cardiac related neural activity, US Patent US 8,454,555.
4. Struijk JJ, **Sevcencu C** and Harreby KR. (2010) Cardiac related neural activity, WO 2010/031406 A1.
5. **Sevcencu Cristian**, Rijkhoff Nico J. M., Sinkjaer Thomas (2005) A device for peristaltic control, WO 2005/087312 A1.
6. **Sevcencu, C.**, Rijkhoff, N. and Sinkjær, T. (2004) A device for peristaltic control (provisional application for a patent).

#### **Articole de conferință recenzate:**

1. Nielsen, Thomas Nørgaard; Struijk, Johannes J.; **Sevcencu, Cristian**. Stimulation waveforms for the selective activation of baroreceptor nerve fibers in the cervical vagus nerve. *Converging Clinical and Engineering Research on Neurorehabilitation II: Proceedings of the 3<sup>rd</sup> International Conference on NeuroRehabilitation, ICNR2016, 18-21 October 2016, Segovia, Spain. Springer, 2017. p. 995-999 (Biosystems and Biorobotics; No. 15).*
2. **Sevcencu, Cristian**; Nielsen, Thomas Nørgaard; Struijk, Johannes J., Blood pressure related neural profiles extracted from pig left vagus nerves using an interfascicular electrode. *Proceedings of the 12th Vienna International Workshop on Functional Electrical Stimulation, FES, 8-9 September 2016, Vienna, Austria. Medical University of Vienna, Vienna Medical School, Center for Medical Physics and Biomedical Engineering, 2016. p. 43-46.*
3. Bhuiyan, Tanveer Ahmed; **Sevcencu, Cristian**; Struijk, Johannes J.; Kanters, Jørgen K.; Graff, Claus. Electrocardiographic measurements of the QT interval during embryonic development in fertilized chicken eggs. In: *Computing in Cardiology, Vol. 43, 304-444, 2016, p. 1053-1055.*
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- enantiomers on the rabbit papillary action potential. *Computing in Cardiology*, Vol. 42, 2015, p. 1089-1092.
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  7. Jiao, Jianhang; **Sevcencu, Cristian**; Harreby, Kristian Rauhe; Jensen, Winnie. High-frequency oscillations in chemically induced spike-and-wave epileptic seizures. *Replace, Repair, Restore, Relieve: Bridging Clinical and Engineering Solutions in Neurorehabilitation: Proceedings of the 2nd International Conference on NeuroRehabilitation, ICNR2014, 24-26 June 2014, Aalborg, Denmark.* ed. Winnie Jensen; Ole Kæseler Andersen; Metin Akay. Springer, 2014. p. 457-463.
  8. Nielsen, T. N., Struijk, J. & **Sevcencu, C.** (2013) A cardiac-related component of the vagus nerve activity is correlated in amplitude to the central arterial blood pressure, *Proceedings of the International Neuromodulation Society 11th World Congress, Berlin, Germany, 8 - 13 June, 2013*, p. 80-81.
  9. Harreby, K. R., **Sevcencu, C.** & Jensen W. (2012) In vitro large polyfascicular nerve model for assessment of fascicular recruitment characteristics of peripheral nerve interfaces. *Converging Clinical and Engineering Research on Neurorehabilitation: International Conference on NeuroRehabilitation, ICNR 2012, 14-16 November 2012, Toledo, Spain.* red. José L. Pons; Diego Torricelli; Marta Pajaro. Vol. Part I Springer, 2013. p. 403-407 (Biosystems and Biorobotics, Vol. 1).
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  13. Nielsen Rauhe K., **Sevcencu C.**, Struijk J. (2008) Vagus nerve activity based prediction of epileptic seizures in rats. *Proc. 13<sup>th</sup> Ann. Conf. IFESS, Freiburg, Germany, September 2008*: 13-15.
  14. Nielsen Rauhe K., **Sevcencu C.**, Rasmussen A., Struijk J. (2008) Prediction of epileptic seizures for on-demand vagus nerve stimulation. *Proc. IFMBE 20, 16-20 June 2008, Riga, Latvia*: 290-293.
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  16. **Cristian Sevcencu**, Nico J. M. Rijkhoff, Hans Gregersen and Thomas Sinkjaer, (2005) Electrical stimulation to induce propulsive contractions in the porcine descending colon, *Artificial Organs*, 29 (3): 246-249.

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18. **Sevcencu C.**, Rijkhoff N J M, Nygaard Lærke H, Jørgensen H, Mark M, Sinkjær T, Electrical stimulation of the descending colon in pigs with chronically implanted electrodes *Proc. 9<sup>th</sup> Ann. Conf. IFESS*, Bournemouth, United Kingdom, September 2004, 85-87.
19. **Cristian Sevcencu**, Nico J. M. Rijkhoff, Hans Gregersen, Thomas Sinkjær, Propulsive contractions induced by electrical stimulation in the descending colon of the pig, *Proc. 8<sup>th</sup> Ann. Meeting IFESS*, Maroochydore, Australia, 1-5 July, 2003, 241-244.
20. **C. Sevcencu**, N. Rijkhoff, S. Laurberg, T. Sinkjær, Method for inducing and monitoring propulsive activity in the rat descending colon, *Proc. 7<sup>th</sup> Ann. Meeting IFESS*, Ljubljana, Slovenia, 25-29 June, 2002, 282-284.
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#### Rezumat de conferință:

1. Harreby KR, **Sevcencu C**, Struijk JJ. (2009) Vagus nerve activity based seizure prediction in rats. *Fourth Int. Workshop on Seizure Prediction, IWSP4*, June 6 2009, Kansas City, USA: s. 9, No. 1.
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5. **C. Sevcencu**, N. J. M. Rijkhoff and T. Sinkjær (2002) Functional differences along the rat descending colon in response to electrical stimulation, *Scan. J. Gastroenterol.* 37 (Suppl. 235), pp. 35.
6. **Sevcencu C.**, Patriciu A. and Ardelean C. (1999) Practical and theoretical considerations on the depolarization front development and displacement in atria and ventricle-aortic bulb preparations isolated from *Rana ridibunda* individuals. *Proc. 5<sup>th</sup> Natl. Conf. Biophys.*, Tg. Mures, Romania, Nov. 1999.
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14. **Sevcencu C.** (1986) Hypoglycemic response to insulin injected into the lateral hypothalamus of Wistar rats. *Proc. 17<sup>th</sup> Natl. Conf. of Student Scientific Societies*, Bucharest, Romania, November 1987.
15. Pop M., **Sevcencu C.** and Sildan N. (1986) Intracerebral insulin receptors: the action of certain blocking substances and the effects of bilateral vagotomy on the glycemia. *Proc. 7<sup>th</sup> Natl. Cong. of Physiological Sciences*, Bucharest, Romania, October 1986.

**Capitole de carte:**

**Cristian Sevcencu** (2009) Gastric Stimulation for Dysmotility Disorders and Obesity, in *Neuromodulation* (red. Elliot S. Krames; P. Hunter Peckham; Ali R. Rezai, Bd. 2 Academic Press, p. 881-889.

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