

Publications

Original articles and reviews

- 1) **Pouokam, Ervice**. "Effects of the gaseous signalling molecule nitroxyl (HNO) on myenteric neurons governing intestinal motility" *Journal of Basic and Clinical Physiology and Pharmacology*, 2022. <https://doi.org/10.1515/jbcpp-2022-0233>
- 2) Claßen Rebecca, **Pouokam Ervice**, Wickleder Matthias, Diener Martin and Mattern Annabelle 2022 Atropine-functionalized gold nanoparticles binding to muscarinic receptors after passage across the intestinal epithelium. *R. Soc. open sci.* 9:220244220244. <https://doi.org/10.1098/rsos.220244>
- 3) Annabelle Mattern, Rebecca Claßen, Annemarie Wolf, **Ervice Pouokam**, Klaus-Dieter Schlüter, Mathias S. Wickleder and Martin Diener. Multivalent Stimulation of β_1 -, but not β_2 -Receptors by Adrenaline Functionalised Gold Nanoparticles (2022). DOI: [10.1039/D2NA00171C](https://doi.org/10.1039/D2NA00171C) . *Nanoscale Adv.*
- 4) **Ervice Pouokam**, Adriana Vallejo, Sara Traserra and Marcel Jimenez. Complementary mechanisms of modulation of spontaneous phasic contractions by the gaseous signalling molecules NO, H₂S, HNO and the polysulfide Na₂S₃ in the rat colon. (2021). <https://doi.org/10.1515/jbcpp-2021-0181>.
- 5) Mirko Gastreich-Seelig, Marcel Jimenez, **Ervice Pouokam** (2020). Mechanisms associated to nitroxyl (HNO)-induced relaxation in the intestinal smooth muscle. *Front. Physiol.* 11: Art. 438. **[3.22 Impact factor]**
- 6) **Pouokam E**, Diener M (2019). Segmental differences in ion transport in rat caecum. *Pflügers Arch. Eur. J. Physiol.* <https://doi.org/10.1007/s00424-019-02276-1>. **[2.765 Impact factor]**
- 7) Mattern A, Machka F, Wickleder MS, Ilyaskina OS, Bünemann M, Diener M, **Pouokam E** (2018). Potentiation of the activation of cholinergic receptors by multivalent presentation of ligands supported on gold nanoparticles *Organ. Biomol. Chem.*, 16:6680-6687. **[3.423 Impact factor]**
- 8) Hölzel S, Zyuzin MV, Wallys J, **Pouokam E**, Müßener J, Hille P, Diener M, Parak WJ, Eickhoff M (2018). Dynamic extracellular imaging of biochemical cell activity using InGaNGaN nanowire arrays as nanophotonic probes. *Adv. Funct. Mater.* Art. 1802503. **[13.325 Impact factor]**
- 9) Schindele S, **Pouokam E**, Diener M (2016). Hypoxia/reoxygenation effects on ion transport across rat colonic epithelium. *Front. Physiol.* 7:Art. 247. **[4.134 Impact factor]**
- 10) **Pouokam E**, Althaus M. (2016). Epithelial electrolyte transport physiology and the gasotransmitter hydrogen sulfide. *Oxid. Med. Cell Longev.*, Art. ID 4723416. **[4.492 Impact factor]**
- 11) Müntze GM, **Pouokam E**, Steidle J, Schäfer W, Sasse A, Röth K, Diener M, Eickhoff M (2015). Acetylcholinesterase-modified AlGa_N/Ga_N solution-gate field-effect transistors for in-situ monitoring of myenteric neuron activity. *Biosens. Bioelectr.*, 77:1048-1054. **[7.476 Impact factor]**
- 12) Gasiorek F, **Pouokam E**, Diener M, Schlecht S, Wickleder M (2015). Effects of multivalent histamine supported on gold nanoparticles: Activation of histamine

receptors by derivatized histamine at subnanomolar concentrations. *Organ. Biomol. Chem.*, 13:9984-9992. **[3.56 Impact factor]**

- 13) Lu Z, Quack T, Hahnel S, Gelmedin V, **Pouokam E**, Diener M, Hardt M, Michel G, Baal N, Hackstein H, Grevelding CG (2015) Isolation, enrichment and primary characterization of vitelline cells from *Schistosoma mansoni* obtained by the organ-isolation method. *Int. J. Parasitol.*, 45:663-672. **[3.87 Impact factor]**
- 14) Würner L, **Pouokam E**, Diener M (2014): The effect of bradykinin on the electrical activity of rat myenteric neurons. *Eur. J. Pharmacol.*, 738:158-169. **[2.53 Impact factor]**
- 15) **Pouokam E**, Bader S, Brück B, Schmidt B, Diener M (2013). ATP-sensitive K⁺ channels in rat colonic epithelium. *Pflügers Arch. Eur. J. Physiol.*, 465:865-877. **[3.073 Impact factor]**
- 16) Onodera K, **Pouokam E**, Diener M (2013): STIM1-regulated Ca²⁺ influx across the apical and the basolateral membrane in colonic epithelium. *J. Membrane Biol.*, 246:271-285. **[2.174 Impact factor]**
- 17) **Pouokam E**, Bell A, Diener M (2013). Actions of Angeli's salt, a nitroxyl (HNO) donor, on ion transport across mucosa-submucosa preparations from rat distal colon. *Eur. J. Pharmacol.*, 715:133-141. **[2.68 Impact factor]**
- 18) **Pouokam E**, Diener M (2012). Modulation of ion transport across rat distal colon by cysteine. *Front. Physiol. Membr. Physiol. Biophys.*, 3, Art. 43. **[2.97 Impact factor]**
- 19) Kohr D, Singh P, Tschernatsch M, Kaps M, **Pouokam E**, Diener M, Kummer W, Birklein F, Vincent A, Goebel A, Wallukat G, Blaes F (2011). Autoimmunity against the beta2 adrenergic receptor and muscarinic 2 receptor in complex regional pain syndrome. *Pain*, 152:2690-2700. **[5.777 Impact factor]**
- 20) **Pouokam E**, Diener M (2011). Mechanims of actions of hydrogen sulfide at rat distal colonic epithelium. *Brit. J. Pharmacol.*, 162:392-404. **[4.409 Impact factor]**
- 21) **Pouokam E**, Steidle M, Diener M (2011). Regulation of colonic ion transport by gasotransmitters. *Biol. Pharm. Bull.*, 34:789-793. **[1.657 Impact factor]**
- 22) **Pouokam E**, Rehn M, Diener M (2009). Effects of H₂O₂ at rat myenteric neurones in culture. *Eur. J. Pharmacol.*, 615:40-49. **[2.585 Impact factor]**
- 23) Kamgang R, Gonsu KH, Wafo P, Mbungni JA, **Pouokam EV**, Fokam TAM, Fonkoua MC (2007). Activity of aqueous ethanol extract of *Euphorbia prostrata* ait on *Shigella dysenteriae* type 1-induced diarrhea in rats. *Ind. J. Pharmacol.*, 39:240-244. **[0.69 Impact factor]**
- 24) Kamgang R, **Pouokam EV**, Fonkoua MC, Penlap NV, Biwole SM (2006). Activities of aqueous extracts of *Mallotus oppositifolium* on *Shigella dysenteriae*1 induced diarrhoea in rats. *Clin. Exp. Pharmacol. Physiol.*, 33:89-94. **[1.780 Impact factor]**
- 25) Kamgang R, **Pouokam EV**, Fonkoua MC, Penlap NV, Biwole SM (2005). *Shigella dysenteriae* type 1-induced diarrhea in rats. *Jpn. J. Infect. Dis.*, 58:335-337. **[0.776 Impact factor]**

Abstracts

1. Gastreich-Seelig M, Jimenez M, **Pouokam E.** (2020). Comparative profiling of the gaseous signaling molecules NO, H₂S, HNO and the polysulfide Na₂S₃ on the spontaneous phasic contractions of the rat colonic muscle strips. *Neurogastroenterol. Motil.*: DOI: 10.1111/nmo.13817.
2. Gastreich-Seelig M, Jimenez M, **Pouokam E.** (2020). Nitroxyl (HNO)-induced relaxation of the intestinal smooth muscle: Mechanisms of action. *Neurogastroenterol. Motil.*: DOI: 10.1111/nmo.13817.
3. Mirko Gastreich-Seelig, **Ervice Pouokam**, Martin Diener (2019). Nitroxyl, a novel player in the regulation of gastrointestinal motility. *Acta Physiol.* 227 Suppl. 719:3. P132.
4. Maanvee Mirakhur, **Ervice Pouokam**, Martin Diener (2019). Effect of protease signalling on myenteric neurons for gastrointestinal motility. *Acta Physiol.* 227 Suppl. 719:3. P135.
5. **Ervice Pouokam**, Martin Diener (2019). Ion transport in rat oral caecum. *Acta Physiol.* 227 Suppl. 719:3. P135.
6. **Pouokam E**, Muentze GM, Diener M, Eickhoff M (2015). Multifunctional screening of cell transistor hybrid systems with enzyme-modified AlGa_N/Ga_N-type field effect transistor arrays. *Acta Physiol.* 214 Suppl. 701:3.
7. Malberg S, Al-Ibadi B, Heckmann J, Piepenbring A, Lierz M, **Pouokam E**, Diener M, Herden C (2015). Immunohistochemical markers for the enteric nervous system of the cockatiel. *J. Comp. Pathol.* 152:74.
8. **Pouokam E**, Bell A, Diener M (2013). Actions of nitroxyl (HNO) on ion transport across rat distal colon. *J. Physiol. Biochem.* 69:660.
9. **Pouokam E**, Diener M (2012). ATP-sensitive K⁺ channels in rat colonic epithelium. *Genes Nutr.* 6 (Suppl. 1):S16.
10. **Pouokam E**, Diener M (2010). Changes in ion transport induced by the endogenous H₂S donor, cysteine, across rat distal colon. *Genes Nutr.* 5 (Suppl. 1):S49.
11. **Pouokam E**, Rehn M, Diener M (2008). Effects of H₂O₂ on Na⁺ currents at rat myenteric neurones. *Leipziger Blaue Hefte 4: Proceedings 18.* Tagung der DVG-Fachgruppe Physiologie und Biochemie:50
12. **Pouokam E**, Rehn M, Diener M (2008). Effects of H₂O₂ on Na⁺ currents at rat myenteric neurones. *J. Physiol. Biochem.* 64:300.
13. **Pouokam E**, Rehn M, Diener M (2007). Actions of oxidants on myenteric neurons. *J. Physiol. Biochem.* 63:69. Gastreich-Seelig M, Jimenez M, Pouokam E. (2020). Comparative profiling of the gaseous signaling molecules NO, H₂S, HNO and the polysulfide Na₂S₃ on the spontaneous phasic contractions of the rat colonic muscle strips

Dissertation:

Effects of H₂O₂ at rat myenteric neurones in culture. Ph.D.-Thesis aus dem Institut für Veterinär-Physiologie der Justus-Liebig-Universität Gießen. http://geb.uni-giessen.de/geb/volltexte/2010/7455/pdf/PouokamKamgneErvice_2010_03_01.pdf

Talks:

- Jahrestagung der Deutschen Gesellschaft für Neurogastroenterologie und Motilität e.V. 10-12.3. **2017**. Berlin, Deutschland. *Nitroxyl (HNO) as a new regulator of intestinal motility.*
- 19th Meeting of the Bad Herrenalber Barriers and Transport. 15-17.5. **2017**. Bad Herrenalb, Germany. *Effects of multivalent agonists of G-protein coupled receptors supported on gold nanoparticles at subnanomolar concentrations.*
- 26th Meeting European Intestinal Transport Group. 02-05.10, **2014**. Marstrand, Schweden. *Multifunctional screening of cell transistor hybrid systems with enzyme-modified algan/gan-type field effect transistor arrays.*
- 25th Meeting European Intestinal Transport Group. 11-14.4, **2013**. Bad Herrenhalb, Germany. *Actions of nitroxyl (HNO) on ion transport across rat distal colon.*
- 20. Tagung der DVG-Fachgruppe Physiologie und Biochemie. 16-18.02.**2012**. München, Deutschland. *Mechanisms of colonic ion transport regulation by nitroxyl (HNO).*
- 24th Meeting European Intestinal Transport Group. 04-07.9.**2011**. Oxford, England. *ATP-sensitive K⁺ channels in rat colonic epithelium.*
- Jahrestagung der Deutschen Gesellschaft für Neurogastroenterologie und Motilität e.V. 4-6.3.**2011**. Freising, Deutschland. *Mechanisms involved in hydrogen sulfide-induced anion secretion across rat colon.*
- 2nd GGL conference on Life Sciences. 30.9-01.10.**2009**. Giessen, Germany. *Effects of H₂O₂ at rat myenteric neurones in culture.*
- 1st GGL conference on Life Sciences .September 30.9-01.10.**2008**. Giessen, Germany. *Effects of H₂O₂ on Na⁺ currents at rat myenteric neurones.*
- 22nd Meeting European Intestinal Transport Group.7-10.9.**2008**. Pamplona, Spain. *Effects of H₂O₂ on Na⁺ currents at rat myenteric neurones.*
- 18. Tagung der DVG-Fachgruppe Physiologie und Biochemie. 9-11.3.**2008**. Leipzig, Deutschland. *Effects of H₂O₂ on Na⁺ currents at rat myenteric neurones.*

Posters

- 98th Annual Meeting of the German Physiology Society. 30.9-02.10.**2019**. Ulm, Germany. Mirko Gastreich-Seelig, Ervice Pouokam, Martin Diener. *Nitroxyl, a novel player in the regulation of gastrointestinal motility.* P132.

- 98th Annual Meeting of the German Physiology Society. 30.9-02.10.2019. Ulm. Germany. Maanvee Mirakhur, Ervice Pouokam, Martin Diener. *Effect of protease signalling on myenteric neurons for gastrointestinal motility. P135.*
- 98th Annual Meeting of the German Physiology Society. 30.9-02.10.2019. Ulm. Germany. Ervice Pouokam, Martin Diener. *Ion transport in rat oral caecum.*
- 23. Tagung der DVG-Fachgruppe Physiologie und Biochemie. 21-23.02.2018. Wien. Österreich. Gastreich-Seelig M; Diener M, Pouokam E. *Nitroxyl (HNO) as novel player in the regulation of gastrointestinal motility.*
- 21. Tagung der DVG-Fachgruppe Physiologie und Biochemie. 13-15.02.2012. Zurich, Schweiz. Schindele S. Pouokam E., Diener. M: *Hypoxia and reoxygenation effects on ion transport across rat colonic epithelium.*
- 23rd Meeting European Intestinal Transport Group. 7-10.4.2010. Salerno, Italy. Changes in ion transport induced by the endogenous H₂S donor, cysteine, across rat distal colon.
- 88th Annual Meeting German Physiology Society. 22-25.3.2009. Giessen, Germany. *Effects of H₂O₂ at rat myenteric neurones in culture.*
- 21st Meeting European Intestinal Transport Group. 03-06.3. 2007. Oberwiesenthal, Germany. *Actions of oxidants on myenteric neurones.*

Attending without contribution:

- 8th GGL conference on Life Sciences .September 30.9-01.10.2015. Giessen, Germany.
- 7th GGL conference on Life Sciences. 17-18.9.2014. Giessen, Germany.
- 6th GGL conference on Life Sciences .11-12.9.2013. Giessen, Germany.
- 1st annual meeting Non-Neuronal Cholinergic Systems. 10.11.2012. Giessen, Germany.
- 5th GGL conference on Life Sciences. 18-19.9.2012. Giessen, Germany.
- 4th GGL conference on Life Sciences. 21-22.9.2011. Giessen, Germany.
- 3rd GGL conference on Life Sciences. 29-30.9.2010. Giessen, Germany.