Geoffroy Laumet, PhD

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**Education**

2007-2011: **PhD**, Molecular Biology in Neurosciences,

Lille Medical School, France - Laboratory of Philippe Amouyel, MD, PhD, Professor of Medicine

**Dissertation**: Implication of ADAMs (metalloproteases) in pathophysiological process of Alzheimer’s disease

2007: **MS**, Genetics and Molecular Biology,

Lille Medical School/University of Lille, France - Laboratory of Philippe Amouyel, MD, PhD, Professor of Medicine

**Dissertation**: Genetic association studies with Alzheimer’s disease development

2005: **BS**, Molecular Biology, University of Valencia, Spain

**Positions and Employment**

From June 2019: **Assistant Professor** (tenure track)

Michigan State University, Department of Physiology, Neuroscience Program, East Lansing, Michigan

**Principal Investigator** - NeuroImmunology of Pain Laboratory

2017-2019: **Instructor**

The University of Texas MD Anderson Cancer Center, Houston, Texas

Laboratory of Neuroimmunology of cancer-related symptoms, Department of Symptom Research

PI: Annemieke Kavelaars, PhD

**Research**: Neuroimmunology of pain resolution

2015-2016: **Postdoctoral fellow**

The University of Texas MD Anderson Cancer Center, Houston, Texas

Laboratory of Neuroimmunology of cancer-related symptoms, Department of Symptom Research

PI: Annemieke Kavelaars, PhD

**Research**: Comorbidity of pain and depression

2012-2014: **Postdoctoral fellow**

The University of Texas MD Anderson Cancer Center, Houston, Texas

Laboratory of Hui-Lin Pan, MD, PhD, NG and Helen T Hawkins Distinguished Professor, Department of Anesthesiology

PI: Hui-Lin Pan, MD, PhD

**Research**: Epigenetic of neuroplasticity in chronic pain models

**Honors and Awards**

2020: Article (Laumet et al., Pain ,2020) was chosen by the *Pain Research Forum* as “editor’s pick”

2020: Rita Allen Foundation Pain Scholar Award

2019: Best Abstract Award in Pain and Genetics Special Group Interest (American Pain Society meeting)

2019: Young Investigator travel award from American Pain Society ($750)

2018: Young Investigator travel award from American Pain Society ($750)

2017: Future Leader in Pain Research award from American Pain Society ($25,000)

2017: Cyrus Scholar Award for Outstanding Basic Science Research ($15.000)

2016: Distinguish Trainee Talk, Gulf Coast Pain Research Symposium

2015: Article (Laumet et al., Nat Neurosci, 2015) was chosen as article of the week by the *Pain Research Forum* as “editor’s pick”.

2015: Basic Science Poster Award (1st place, $500), Division of Internal Medicine, Research Retreat

2013: Philippe Foundation Postdoctoral Award ($3,000)

2013: Postdoctoral Platform Presentation Award (1st place, $200), Gulf Coast Pain Research Symposium

2013: Trainee Research Day, AMEGEN postgraduate Award, The University of Texas MD Anderson

2010: Dr. Andre Verbert Trainee Research Day, oral finalist, Lille Medical School

2008: Teaching Grant from University of Lille Health and Law ($ 12,000 for 3 years)

2007: PhD fellowship Pasteur Institute - Regional Council ($45,000 for 3 years)

2006: Merit-based Scholarship from University of Lille ($5,000)

2005: ERASMUS scholarship from European Union Education Department. A travel grant to study and get my BS degree aboard ($4000) (University of Valencia, Spain)

**Grants/Funding**

*Current*

Neuroscience Discretionary Research Fund 2022 - $12,000 (Internal: MSU NSP)

CNS-Border Associated Macrophages (BAMs) in physiological and sickness behaviors

Role: PI

Industrial partnership with University of Brussels (ULB, Belgium) and UCB Pharma (Pharmaceutical company, Belgium). Investigate the impact of XXX genetic deletion on neuropathic ad inflammatory pain (05/01/2021 – 09/01/2022) $110.000.

NIH/NINDS 1R01NS121259-01 06/15/2021 – 03/31/2026

Neuroimmune interactions regulating the balance between remission and relapse of pain (~$2M).

The goal is to investigate the mechanisms underlying the maintenance or remission from pain.

Role: PI

Rita Allen Foundation 2020 Award in Pain Research ($150,000). 8/17/2020 – 08/31/2023.

Cellular and molecular mechanisms underlying remission and relapse of pain.

Role: PI

Start-up funding. College Natural Science/Department of Physiology. 06/01/2019 - 08/14/2022

Role: PI

*Completed*

Cyrus Scholar Award for Outstanding Basic Science Research ($15.000). 5/27/2017 – 5/26/2019

Resolution of chemotherapy-induced peripheral neuropathy (CIPN): a key role for CD8+ T cells

The major goal of this project is to determine whether CD8+ T cells can be educated to treat CIPN.

Role: PI

American Pain Society Future Leaders in Pain Research ($25.000). 11/01/2017 – 02/28/2019

Neuroimmune mechanism of latent pain sensitization in response to chemotherapy.

The main goal of this project is to test the hypothesis that persistent upregulation of spinal IL-10 is necessary to maintain recovery of neuropathic pain though promotion of mitochondria health and changes in gene expression

Role: PI

NIH/NINDS 2R01NS073939-07 7/01/2011 – 5/31/2019

Neuroimmune Mechanism of Recovery from Comorbid Depression and Chronic Pain

The major goal is to investigate the contribution of T cells to the spontaneous resolution of inflammatory pain and comorbid depression.

Role: Co-investigator (from 7/31/2017 to 5/31/2019)

PhD fellowship. Regional Council/Pasteur Institute 09/01/2007 - 12/31/2010

Role of ADAM metalloproteinases in Alzheimer’s disease development.

Role: Awardee

**Patents**

A method for the treatment of neuropathy (European patent application N° 22 305 262.2 filed on 08 Mars 2022; international 03/08/2023) #EP22305262.2.

Applicants:  INSERM, UNIVERSITE DE LILLE, CHRU DE LILLE, BOARD OF TRUSTEES OF MICHIGAN STATE UNIVERSITY

**Mentoring**

**Laumet Lab MSU** (\*denotes individual from populations underrepresented in Scientific Workforce)

Postdoctoral fellows:

\*Kufreobong Inyang, PhD Mar 2020-

\*Sabrina Maciel de Souza, PhD Feb 2022-

Graduate researchers:

Logan Commins (MSUCOM) Aug 2022-

Zach Waarala (MSUCOM) Mar 2022-

Andrew Dagenais (MSUCMO) May 2021-Apr 2022

Jaewon Sim (CMB) Feb-Mar 2021

Matthew Heussner (MSUCOM) 2019-2020

Undergraduate researchers:

Gillian Robbins (Professorial Assistant, Freshman Biochem major) Oct 22-

Lizzy O’Guin (Soph PSL, PSL490) Jul 22-

\*Hannah Hua (TRIO scholar, Soph NSP) FS22-

\*Oluwabusola Ajagbe (Freshman NSP major) Feb 2022-

Hari Ramakrishnan (Professorial Assistant, Freshman Physiology major) Nov 2021-

\*Krystal Santiago-Colon (Co-Mentor, main mentor Gina Leinninger,ENDURE/BPNP) Fall 2021

\*Jesus Rosario-Claudio (ENDURE/BPNP) Sum21, Sum22, FS22

Evan Harwood (Junior NSP) Summer 2021

Matthew J Hoffman (Soph Human biology) Remote Spring 2021

Christine Evans (Soph PSL, PSL490) FS 2021- FS22

Karli Monahan (Junior PSL, PSL490) FS20 – SS22

\*Abi Otwell (Junior NSP/MMG double major, NSP490) Fall 2019- 2020

Mahmoud Ajine (Junior NSP major) Fall 19-Mar 20

Vivjal Patel (Sophomore Physiology major) Spring 2020

Gokul Murali (Junior Physiology major) Feb -Mar 2020

**Visiting Scholars**

Dr. Sanae Ishii (Kyorin University, Tokyo, Japan) July 2022

**Graduate Student Committee**

Simon Vermeiren (University of Brussels, Belgium) Defense Jan 2020

Zayn Al-Zahid (PI Leinninger) MCIP graduate student Comprehensive exam (failed) SS22

Rabail Khan (PI Leinninger) NEU graduate student Comprehensive exam (passed) SS22

Jaewon Sim (Mentor) CMB graduate student

Grace Lee (PI Leinninger) MCIP graduate student

**Before MSU**

Visiting Faculty:

Dr. Yingchun Dong (Nanjing University), Pan Lab, MD Anderson 2014

Dr. Yi-Min. Hu (Nanjing University), Pan Lab, MD Anderson 2013

Graduate researchers:

Jules Edralin (Univ of Texas Austin), Kavelaars Lab, MD Anderson 2016-2019

\*Alexis Mobley (GSBS UT Houston), Kavelaars Lab, MD Anderson Fall 2016

Florie Demiautte (University of Lille), Amouyel Lab, Pasteur Institute 2010

Dr. Adeline Silaire (Lille Medical School), Amouyel Lab, Pasteur Institute 2009

Undergraduate researchers:

Megha Rajput (Univ of Houston), Kavelaars Lab, MD Anderson 2019

Brooke Clark (Dallas Baptist University), Kavelaars Lab, MD Anderson Summer 2018

\*Christina Dias (Univ of Houston), Kavelaars Lab, MD Anderson 2018-May 2019

\*Sophia Vargas (Univ of Houston), Kavelaars Lab, MD Anderson 2018

Terrance Smith (Univ of Houston), Kavelaars Lab, MD Anderson 2017-2018

Uma Ramesch (Rice University), Kavelaars Lab, MD Anderson 2017

Anabella Pinton (University of Chicago), Kavelaars Lab, MD Anderson Summer 2017

\*Bryan LaVergne (Univ of Houston), Kavelaars Lab, MD Anderson 2016

\*Alexa Martinez (Univ of Houston), Kavelaars Lab, MD Anderson 2015

Mohammed Ansari (Univ of Houston), Kavelaars Lab, MD Anderson 2015

Dr. Vincent Petitprez (University of Lille), Amouyel Lab, Pasteur Institute 2009

**Teaching**

2008-2011: **Teaching Assistant** in School of Pharmacy of Lille, Biochemistry and Molecular biology, France. Department of Biochemistry. PI Thierry Brousseau, PhD, PharmD

MSU:

**ENDURE Program** Neuroscience Lecture: Neuro-immune interactions contribute to the transition from acute to chronic pain. Invited by *Dr. W. Atchison*. 1 lecture 2020

**OST597**. Guest Lecture Invited by *Dr. F. Irfan*. Translational Research Case Study: Pain Research. From Gene to potential therapeutic. 1 lecture/year SS21, SS22

**PSL431**. FS21, FS22. Human Physiology I (Unit “Nervous System”).

**Peer-Reviewed Publications** (# = corresponding author; Green Name = MSU lab member)

**Full bibliography**. <https://www.ncbi.nlm.nih.gov/myncbi/geoffroy.laumet.3/bibliography/public/>

Edmone Dewaeles, Kévin Carvalho, Sandy Fellah, Jaewon Sim, Nihad Boukrout ,Raphaelle Caillierez, Hariharan Ramakrishnan, Cynthia Van der Hauwaert, Jhenkruthi Vijayashankara, Nathalie Martin, Noura Massri, Agathe Launay, Joseph K. Folger, Clémentine De Schutter, Romain Larrue, Ingrid Loison, Marine Goujon, Matthieu Jung, Stéphanie Le Gras, Victoria Gomez-Murcia, Emilie Faivre, Julie Lemaire, Anne Garat, Nicolas Beauval, Patrice Maboudou, Viviane Gnemmi, Jean-Baptiste Gibier, Luc Buée, Corinne Abbadie, Francois Glowacki, Nicolas Pottier, Michael Perrais, Rodrigo A. Cunha, Jean-Sébastien Annicotte, **Geoffroy Laumet**, David Blum, Christelle Cauffiez. Istradefylline (KW6002) protects from cisplatin-induced nephrotoxicity and peripheral neuropathy while preserving cisplatin anti-tumor effects.   
**J Clin Investigation**. *In press*.

Dionna W. Williams; Bianca R. Flores; Yanxun Xu; Yuezhe Wang; Danyang Yu; Brandilyn A. Peters; Adebola Adedimeji; Tracey E. Wilson; Daniel Merenstein; Phyllis C. Tien; Mardge H. Cohen; Kathleen M. Weber; Adaora A. Adimora; Igho Ofotokun; Margaret Fischl; Janet Turan; Bülent Turan; **Geoffroy Laumet**; Alan L. Landay; Raha M. Dastgheyb; Stephen J. Gange; Sheri D. Weiser. Leah H. Rubin. T-cell activation state differentially contributes to neuropsychiatric complications in women with HIV. **Brain Behav Immun Health** (BBIH-D-22-00075). *In press*.

Hinami Asano, Sanae Hasegawa-Ishii, Ken Arae, Aki Obara, **Geoffroy Laumet**, Robert Dantzer and Atsuyoshi Shimada. Infiltration of peripheral immune cells into the olfactory bulb in a mouse model of acute nasal inflammation. **J Neuroinflammation**. 2022 Jul 15;368:577897. doi: 10.1016/j.jneuroim.2022.577897.

Susmita K Singh, Karen Krukowski, **Geoffroy Laumet**, Drew Weis, Jenolyn F. Alexander, Cobi J. Heijnen, and Annemieke Kavelaars. CD8+ T cells-derived IL-13 increases macrophages IL-10 to resolve neuropathic pain. **JCI insight**. 2022;7(5):e154194. https://doi.org/10.1172/jci.

Aurore Latragna, Alba Sabaté, Panagiotis Tsimpos, Simon Vermeiren, Roberta Gualdani, Sampurna Chakrabarti, Gerard Callejo, Orr Shomroni, Sadia Kricha, Benoit Vanhollebeke, **Geoffroy Laumet**, Gabriela Salinas-Riester, Ewan St. John Smith, Laurence Ris, Eric J. Bellefroid. Loss of Prdm12 increases inflammatory pain by remodeling gene expression in mature nociceptors. **PAIN**. 2021 Dec 24. doi: 10.1097/j.pain.0000000000002536

Prossin G, Kock A, Zalcman S, Campbell P, **Laumet G**, Stohler C, Dantzer R and Zubieta JK. Effects of placebo administration on immune mechanisms and relationships with central endogenous opioid neurotransmission. **Mol Psychiatry**. 2021 Oct 29. doi: 10.1038/s41380-021-01365-x

Kufreobong E. Inyang, Joseph K. Folger, and **Geoffroy Laumet**#. Can FDA-approved immunomodulatory drugs be repurposed/repositioned to alleviate chronic pain?**Journal NeuroImmune Pharmacology**. 2021 Sep;16(3):531-547. doi: 10.1007/s11481-021-10000-z.

Kufreobong Inyang, Susan George, and **Geoffroy Laumet#**. The µ-δ opioid heteromer masks Latent Pain Sensitization in neuropathic and inflammatory pain in male and female mice. **Brain Research**. 2021 Apr 1;1756:147298. doi: 10.1016/j.brainres.2021.147298. Highlighted in Medicine Innovates

Matthew J. Heussner, Joseph K. Folger, Christina Dias, Noura Massri, Albert Dahdah, Paola D. Vermeer and **Geoffroy Laumet#**. A Novel Syngeneic Immunocompetent Mouse Model of Head and Neck Cancer Pain independent of IL-1 signaling. **Anesthesia & Analgesia** *2020 Dec 3. doi: 10.1213/ANE.0000000000005302. PMID: 33323783*. Highlighted on the Journal social media https://twitter.com/IARS\_Journals/status/1341028203490463746

7β-(3-ethyl-cis-crotonoyloxy)-1α-(2-methylbutyryloxy)-3,14-dehydro-Z Notonipetranone Attenuates Neuropathic Pain by Suppressing Oxidative Stress, Inflammatory and Pro-Apoptotic Proteins Expression  
Authors: Amna Khan, Adnan Khan, Sidra Khalid, Bushra Shal, Eunwoo Kang, Hwaryeong Lee, **Geoffroy Laumet**, Eun Kyoung Seo, Salman Khan. **Molecules***. 2021 Jan 1;26(1):181. doi: 10.3390/molecules26010181.*

Nabila Boukelmoune, **Geoffroy Laumet**, Yongfu Tang, Jiacheng Ma, Itee Mahant, Kumari S, Cora Nijboer, Manon Benders, Annemieke Kavelaars, and Cobi J. Heijnen. Nasal administration of mesenchymal stem cells reverses chemotherapy-induced peripheral neuropathy in mice. **Brain, Behavior, and Immunity***.* 2021 Mar;93:43-54. doi: 10.1016/j.bbi.2020.12.011.

**Laumet G**\*, Bavencoffe A\*, Edralin JD, Huo XJ, Walters E, Dantzer R, Heijnen CJ amd Kavelaars A. Interleukin-10 resolves pain hypersensitivity induced by cisplatin by reversing sensory neuron hyperexcitability. **Pain** *2020 Oct;161(10):2344-2352. doi:10.1097/j.pain.0000000000001921. PMID: 32427749,* \* = equal contribution. Selected as Editor choice for Video abstract

**Laumet G**, Edralin JD, Dantzer R, Heijnen CJ and Kavelaars A. CD3+ T cells are critical for the resolution of comorbid inflammatory pain and depression-like behavior. **Neurobiology of Pain.** *2020 Jan 21;7:100043. doi: 10.1016/j.ynpai.2020.100043. eCollection 2020 Jan-Jul. PMID: 32510006*

Inyang KE, McDougal TA, Ramirez ED, Williams M, **Laumet G**, Kavelaars A, Heijnen C, Burton M, Dussor G, Price TJ. Optimizing pharmacological targeting of AMPK for treatment of paclitaxel-induced peripheral neuropathy using male and female mice. **Neurobiol of Pain** 2019 Sep 27;6:100037.

**Laumet G#**, Ma J, Robison AJ, Kumari S, Heijnen CJ, Kavelaars A. T cells as an emerging target for chronic pain therapy. **Front. Mol. Neurosci.** doi: 10.3389/fnmol.2019.00216. # = corresponding author. doi: 10.3389/fnmol.2019.00216.

**Laumet G**, Edralin JD, Dantzer R, Heijnen CJ and Kavelaars A. Cisplatin educates CD8+ T cells to prevent and resolve chemotherapy-induced peripheral neuropathy in mice. **PAIN**. 2019 Jun;160(6):1459-1468.

**Laumet G**, Edralin JD, Chiang ACA, Dantzer R, Heijnen CJ and Kavelaars A. Resolution of inflammation-induced depression requires T lymphocytes and endogenous brain IL-10 signaling. ***Neuropsychopharmacology***. 2018 Dec;43(13):2597-2605*.*

Vichaya E, **Laumet G**, Christian D, Grossberg AJ, Estrada DJ, Heijnen CJ, Kavelaars A and Dantzer R. Motivational changes that develop in a mouse model of inflammation-induced depression are independent of indoleamine 2,3 dioxygenase. ***Neuropsychopharmacology***. 2018 Apr 27.

Garriga J\*, **Laumet G\***, Chen SR, Zhang Y, Madzo J, Pan HL, Issa JP, and Jelinek J. Nerve injury-induced chronic pain is associated with persistent DNA methylation reprogramming in dorsal root ganglion.***The Journal of Neuroscience****.* 2018Jul 4;38(27):6090-6101.\* Equal contribution.

**Laumet G\***, Zhou W\*, Dantzer R, Edralin JD, Huo XJ, Budac DP, Mao-Ying QL, O’Connor J, Lee AW, Heijnen CJ and Kavelaars A. Upregulation of Neuronal Kynurenine 3-Monooxygenase (KMO) Mediates Depression-like Behavior in a Mouse Model of Neuropathic Pain. **Brain, Behavior, and Immunity** 2017 Jul 11. pii: S0889-1591(17)30215-5. \* Equal contribution.

**Laumet, G. O**., Chen, S-R., & Pan, H-L. (2017). NMDA receptors and signaling in chronic neuropathic pain. In Receptors (pp. 103-119). (Receptors; Vol. 30). Humana Press Inc.. <https://doi.org/10.1007/978-3-319-49795-2_6>. **Springer Nature**.

Krukowski KN, Ma J, Golonzhka O, **Laumet G**, Gutti T, van Duzer JH, Mazitschek R, Jarpe M, Heijnen CJ and Kavelaars A. HDAC6 Inhibition Effectively Reverses Chemotherapy-Induced Peripheral Neuropathy. **Pain** 2017 Mar 4.

Chiu GS, Maj MA, Rizvi S, Dantzer R, Vichaya EG, **Laumet G**, Kavelaars A and Heijnen CJ. Pifithrin- µ prevents cisplatin-induced chemobrain by preserving neuronal mitochondrial function. **Cancer Research**. 2016 Nov 22. pii: canres.1817.2016

Krukowski K**,** Eijkelkamp N\*, **Laumet G\***, Hack CE, Heijnen CJ and Kavelaars A. CD8+ T cells and endogenous IL-10 are required for resolution of chemotherapy induced neuropathic pain. ***The Journal of Neuroscience***. 26 October 2016, 36 (43) 11074-11083. \*contribute equally to this work.

Letronne F\*, **Laumet G\***, Ayral AM, Chapuis J, Demiautte F, Laga M, Vandenberghe ME, Malmanche N, Leroux F, Eysert F, Sottejeau Y, Chami L, Flaig A, Bauer C, Dourlen P, Lesaffre M, Delay C, Huot L, Dumont J, Werkmeister E, Lafont F, Mendes T, Hansmannel F, Dermaut B, Deprez B, Hérard AS, Dhenain M, Souedet N, Pasquier F, Tulasne D, Berr C, Hauw JJ, Lemoine Y, Amouyel P, Mann D, Déprez R, Checler F, Hot D, Delzescaux T, Gevaert K, Lambert JC. ADAM30 Downregulates APP-Linked Defects Through Cathepsin D Activation in Alzheimer's Disease. **EBioMedicine**. \*contributed equally to this work.

Zhang Y, Chen SR, **Laumet G**, Chen H, Pan HL. Nerve Injury Diminishes Opioid Analgesia through Lysine Methyltransferase-Mediated Transcriptional Repression of μ-Opioid Receptors in Primary Sensory Neurons. **Journal of BioChemistry** 2016 Feb 25.

**Laumet G**. Book Review: Modern Trends in Pharmacopsychiatry Vol. 30 “Pain in Psychiatric Disorders” edited by David P. Fin and Brian E. Leonard, Karger, Basel, Switzerland (2015). **Psychoneuroendocrinology**. 2016.

**Laumet G**, Garriga J, Chen SR, Zhang Y, Smith TS, Li DP, Jelinek J, Cesaroni M, Issa JP, and Pan HL.G9a is essential for epigenetic silencing of K+ channel genes and acute-to-chronic transition.   
**Nature Neuroscience**2015 Dec;18(12):1746-55. Highlighted in *PainResearchForum* (1) [and](http://www.painresearchforum.org/news/61199-epigenetic-regulator-controls-development-and-maintenance-chronic-pain)%20and) by the Nature sponsored Multiple Sclerosis blog (2).

1. <http://www.painresearchforum.org/news/61199-epigenetic-regulator-controls-development-and-maintenance-chronic-pain>
2. <http://multiple-sclerosis-research.blogspot.com/2015/11/a-way-to-silence-neuropathic-pain.html>

Zhang Y, **Laumet G**, Chen SR, Hittelman WN, Pan HL. Pannexin-1 Up-regulation in the Dorsal Root Ganglion Contributes to Neuropathic Pain Development. **Journal of BioChemistry** 2015 Jun 5;290(23):14647-55

Zhu L, Chen SR, **Laumet G**, Chen H and Pan HL. Increased Spinal Cord NKCC1 Activity Contributes to Impairment of Synaptic Inhibition in Paclitaxel-induced Neuropathic Pain. **Journal of BioChemistry** 2014 Nov 7;289(45):31111-20.

Hansmannel F, Sillaire A, Kamboh MI, Lendon C, Pasquier F, Hannequin D**, Laumet G**, Mounier A, Ayral AM, DeKosky ST, Hauw JJ, Berr C, Mann D, Amouyel P, Campion D, Lambert JC. Is the urea cycle involved in Alzheimer's disease? **J Alzheimers Dis**. 2010; 21(3):1013-21.

**Laumet G**, Chouraki V, Grenier-Boley B, Legry V, Heath S, Zelenika D, Fievet N, Hannequin D, Delepine M, Pasquier F, Hanon O, Brice A, Epelbaum J, Berr C, Dartigues JF, Tzourio C, Campion D, Lathrop M, Bertram L, Amouyel P, Lambert JC. Systematic analysis of candidate genes for Alzheimer's disease in French, genome-wide associations study. **J Alzheimers Dis**. 2010;20(4):1181-8.

**Laumet G**, Petitprez V, Sillaire A, Ayral AM, Hansmannel F, Chapuis J, Hannequin D, Pasquier F, Scarpini E, Galimberti D, Lendon C, Campion D, Amouyel P, Lambert JC. A study of the association between the ADAM12 and SH3PXD2A (SH3MD1) genes and Alzheimer's disease. **Neurosci Lett.** 2010 Jan 1;468(1):1-2.

Chapuis J, Hot D, Hansmannel F, Kerdraon O, Ferreira S, Hubans C, Maurage CA, Huot L, Bensemain F, **Laumet G**, Ayral AM, Fievet N, Hauw JJ, DeKosky ST, Lemoine Y, Iwatsubo T, Wavrant-Devrièze F, Dartigues JF, Tzourio C, Buée L, Pasquier F, Berr C, Mann D, Lendon C, Alpérovitch A, Kamboh MI, Amouyel P, Lambert JC. Transcriptomic and genetic studies identify IL-33 as a candidate gene for Alzheimer's disease. **Mol Psychiatry**. 2009 Nov;14(11):1004-16.

Hansmannel F, Lendon C, Pasquier F, Dumont J, Hannequin D, Chapuis J, **Laumet G**, Ayral AM, Galimberti D, Scarpini E, Campion D, Amouyel P, Lambert JC. Is the ornithine transcarbamylase gene a genetic determinant of Alzheimer's disease? **Neurosci Lett**. 2009 Jan 2;449(1):76-80.

Le Fur I, **Laumet G**, Richard F, Fievet N, Berr C, Rouaud O, Delcourt C, Amouyel P, Lambert JC. Association study of the CFH Y402H polymorphism with Alzheimer's disease. **Neurobiol Aging**. 2010 Jan;31(1):165-6.

**Presentations**

* **Presentations from trainees**

Rabail Khan, Grace Lee, Kufreobong Inyang, **Geoffroy Laumet**, Gina Leinninger. Neurotensin expressing lateral hypothalamic neurons alleviate neuropathic and inflammatory pain via Nts signaling. **American Physiology Summit**. April 2023, Long Beach, CA.

Sabrina de Souza; Kufreobong Inyang; Sophie Laumet; Natalia Duque-Wilckens; Joseph Folger; Adam Moeser; A.J Robison; **Geoffroy Laumet**. Mast cells contribute to the resolution of pain hypersensitivity after skin injur. *Selected for short talk: Workshop 2: MRG Receptors and Skin Immunity*. **Keystone Skin Immunology**, Feb 2023, Breckenridge, CO.

Jaewon Sim, Karli Monahan, Chiho Sugimoto, Lizzy O’Guin, Joseph Folger, AJ Robison, Sarah Linnstaedt and **Geoffroy Laumet**. Skin infiltrated Ly6C+ monocytes contribute to the sex difference in the resolution of inflammatory pain. **Keystone Skin Immunology**, Feb 2023, Breckenridge, CO.

Jaewon Sim, Karli Monahan, Chiho Sugimoto, Joseph Folger, AJ Robison, Sarah Linnstaedt and **Geoffroy Laumet**. Immune cells contribute to sex difference in pain. 15th Annual Graduate Academic Conference. MSU. Feb, 2023

Jaewon Sim, Karli Monahan, Chiho Sugimoto, Joseph Folger, AJ Robison and **Geoffroy Laumet**. Skin interleukin-10 contributes to sex difference in pain resolution. **World Congress of Pain**. Toronto, Sept 2022

Jaewon Sim, Karli Monahan, Chiho Sugimoto, Joseph Folger, AJ Robison and **Geoffroy Laumet**. Skin interleukin-10 contributes to sex difference in pain resolution. Selected for talk at the **Physiology Retreat**. MSU, Sept 2022

Jesus Rosario-Claudio, Joseph Folger and **Geoffroy Laumet**. Regulation of inflammation by sensory neurons. **Physiology Retreat**. MSU, Sept 2022.

Christine Evans, Kufreobong Inyang, Joseph Folger and **Geoffroy Laumet**. Role of tumor-released small extracellular vesicles in cancer pain. **Physiology Retreat**. MSU, Sept 2022.

Hari Ramakrishnan, Jaewon Sim, **Geoffroy Laumet**. Adenosine Receptor Antagonist reduces chemotherapy side effects in mice such as cisplatin-induced kidney toxicity and painful neuropathy. **Physiology Retreat**. MSU, Sept 2022.

Kufreobong E. Inyang, Christine M. Evans, Matthew Heussner, Margaret Petroff, Mark Reimers, Paola D. Vermeer, Nathan Tykocki, Joseph K. Folger, **Geoffroy Laumet**#. Head and Neck Cancer-derived small extracellular vesicles sensitize TRPV1+ neurons to mediate cancer pain. **Physiology Retreat**. MSU, Sept 2022.

Jesus Rosario Travel Scholarship to SACNAS 2022

Hari Ramakrishnan, Jaewon Sim, **Geoffroy Laumet**. Adenosine Receptor Antagonist reduces chemotherapy side effects in mice such as cisplatin-induced kidney toxicity and painful neuropathy. University Undergraduate Research & Art Forum 2022. **Award Winning, Neuroscience 1st place and STEM Grand Prize** (https://physiology.natsci.msu.edu/physiology-news/physiology-major-wins-grand-prize-at-2022-uuraf/)

Christine Evans and **Geoffroy Laumet**. Role of tumor-released small extracellular vesicles in cancer pain. University Undergraduate Research & Art Forum 2022.

Karli Monahan and **Geoffroy Laumet**. Faster resolution of inflammatory pain in male mice compared to females is associated with higher production of interleukin (IL)-10. University Undergraduate Research & Art Forum 2022.

Krystal Santiago-Colon, Zayn Al-Zahid, **Geoffroy Laumet**, Gina Leininger. The role of central neurotensin signaling in pain. SfN 2021.

Jesus Rosario-Claudio and **Geoffroy Laumet**. Regulation of inflammation by sensory neurons. University of Puerto Rico at Cayey UG Research Day. **Award Winning, Biology Research 1st place**

Jesus Rosario-Claudio and **Geoffroy Laumet**. Regulation of inflammation by sensory neurons. Annual Biomedical Research Conference for Minority Students 2021. **Award Winning, Neuroscience 1st place**

Karli Monahan and **Geoffroy Laumet**. Protective Role of Mast Cells in Inflammatory Pain. Mid-Sure Michigan 2021.

Jesus Rosario-Claudio and **Geoffroy Laumet**. Regulation of inflammation by sensory neurons. Mid-Sure Michigan 2021.

Karli Monahan and **Geoffroy Laumet**. Protective Role of Mast Cells in Inflammatory Pain. University Undergraduate Research & Art Forum 2021. **Award Winning, Neuroscience 1st place**

Kufreobong Inyang, Susan George, and **Geoffroy Laumet**. The µ-δ opioid heteromer masks Latent Pain Sensitization in neuropathic and inflammatory pain in male and female mice. SfN Global Connectome 2021

Kufreobong Inyang, Susan George, and **Geoffroy Laumet**. The µ-δ opioid heteromer masks Latent Pain Sensitization in neuropathic and inflammatory pain in male and female mice. US ASP meeting Dec 2020

**Society & Reviewing**

Editorial Board member

Neurobiology of Pain May 2021 –

Frontier in Immunology Jan 2023 -

Journal reviewer

I serve as an *ad hoc* reviewer for

Brain, Behavior, and Immunity (IF 7.2)

Pain (IF 6.9)

Neuropsychopharmacology (IF 7.8)

Philosophical Transactions of the Royal Society B (IF 6.2)

Scientific Reports (IF 4.3)

Psychoneuroendocrinology (IF 4.7)

Journal of Neuroinflammation (IF 8.3)

Biomedicine & Pharmacotherapy (IF 6.5)

European Journal of Pain (IF 3.4)

Brain Behavior Research (IF 3.3)

Journal of Pain Research (IF 2.6)

Neurobiology of Pain (IF 3.5)

Heliyon (IF 2.8)

Pain reports (IF 2.8)

FASEB J (IF 5)

Journal of Clinical Investigation (IF 14.9)

Science Advances (IF 14.1)

Frontier in Immunology (IF 6.4)

Biological Psychiatry (IF 13.4)

European J Neuroscience (IF 3.4)

Advanced Biology (IF 4.0)

Neurobiol Disease (IF 5.2)

PNAS (IF 12.8)

iScience (IF 5.7).

Grant reviewer (member)

**NIH National Cancer Institute**: SEP-9 NCI Clinical and Translational Research Review (special emphasis panel)

Grant reviewer (ad hoc reviewer)

**2019 APS Future Leader in Pain Research grant** Review panel(APS)

**Consortium for Medical Marijuana Clinical Outcomes Research.** External reviewer. I reviewed and scored proposals for medical institution in Florida.

**United Kingdom Research and Innovation (UKRI) Medical Research Council (MRC).** External reviewer, I reviewed proposals for young and established investigators in UK.

**Societies**: PsychoNeuroImmunology Research society (Trainee Committee 2016-2021; Nomination Committee member 2021-present), Society for Neuroscience, International Association for the Study of Pain, Neuropathic pain Special group interest, American Pain Society, Texas Pain Research Consortium, US Association for the Study of Pain (US ASP, Award committee FS22- ), American Physiology society (APS).

**Services to MSU**

Department of Physiology Research Retreat Committee 2020

Neuroscience Graduate Affairs Committee 2020-2022

RCR 5th floor ISTB 2020 and 2022

MCIP RCR FS2022-

Co-chair Department of Physiology Seminar Series 2020-2021

Chair Department of Physiology Seminar Series Fall 2021-

Opioid Prevention and Education Network (OPEN) MSU committee member 2021-

Research and Development Committee (member) Fall 2020- SS2022

Chair of the Research and Development Committee FS2022-

Chair/founder of the Neuro-Immuno-Physiology #NIPjournalclub

Member of the Search Committee NSP Director (Summer 2022).

Coordinate Dr. Yun Liang recruitment

Judge for Undergraduate research events: Capstone Physiology (2020, 2021, 2022), Mid-Sure (2022).

Member of the search committee for the Director of the NSP (2022)

Member of the search committee for the Chair of the Department of Physiology (2022-)

Member of the search committee for a tenure-track position on Cancer biology in the Department of Physiology (2022-)