

**Joseph C. Kouokam, Ph.D.**  
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## **EDUCATION**

1993 B.S. in Biochemistry, University of Yaounde, Yaounde, Cameroon  
1995 "Maîtrise" (Postgraduate Diploma), University of Yaounde 1, Yaounde, Cameroon  
1997 "D.E.A " (M.SC), University of Yaounde, Yaounde 1, Cameroon  
2002 Ph.D. (Dr. rer. nat), University of Saarland, Saarbrücken, Germany

## **EDUCATIONAL TRAINING**

2016 Delphi U Online (8 week online course on online teaching) by Delphi Center for Teaching and Learning, UofL

## **ACADEMIC APPOINTMENTS**

2017-Present Assistant Professor of Pharmacology and Toxicology  
University of Louisville  
Louisville, Kentucky

2015-2017 Instructor  
Department of Pharmacology and Toxicology  
University of Louisville  
Louisville, Kentucky

2012-2015 Research Scientist  
Owensboro Health/ Department of Pharmacology and Toxicology  
University of Louisville  
Louisville, Kentucky

2008-2012 Postdoctoral Scholar  
Brown Cancer center and Department of Pharmacology and Toxicology  
University of Louisville  
Louisville, Kentucky

2006 –2007 Postdoctoral Research Associate  
Department of Microbiology and Immunology  
University of Louisville  
Louisville, Kentucky

## **PROFESSIONAL MEMBERSHIPS AND ACTIVITIES**

2012-Present Kentucky Academy of Science  
2009-Present Global Advocacy for HIV Prevention  
2002-Present Phytomedica network, London, UK

1996-1999      Cameroonian Society of Biochemistry (SOCAB)

## HONORS AND AWARDS

2011              Travel scholarship for the Keystone Symposium on Molecular and Cellular Biology (Whistler, Canada).  
 2003 – 2006      Postdoctoral fellowship in the Graduate College “Gene regulation in and by microbial pathogens”; supported by grant from STINT (The Swedish Foundation for International Cooperation in Research and Higher Education)  
 2003              Postdoctoral fellowship in the Graduate College “Gene Regulation in and by Microbial Pathogens”, joint project of Umeå University and University of Wuerzburg, supported by grant from DFG (German Research Foundation)  
 2002              First Poster price at the International Symposium on Medicinal and Aromatic Plants (2-4 May, Rabat, Morocco)  
 1999-2002      DAAD (German Academic Exchange Service) Fellow at the University of Saarland, Germany  
 1999              DAAD Fellow for German language training, Speak and Write, Marburg, Germany

## PREVIOUS GRANTS

NIAID/3U19AI113182-03S1 (Safety and efficacy of plant produced Griffithsin in the context of colorectal pathologies; Co-I,              Kenneth E. Palmer); 2016-2017; \$127,974

## EDUCATIONAL ACTIVITIES

2018-Present      Chairman of the Seminar Committee in the Department of Pharmacology and Toxicology  
 2018-Present      Course director in the Department of Pharmacology and Toxicology  
 2017-Present      Lecturer, Department of Pharmacology and Toxicology  
 2016-Present      Teaching (as facilitator) of graduate students in the Department of Pharmacology and Toxicology  
 2016-Present      Member of the Seminar Committee in the Department of Pharmacology and Toxicology  
 2008-Present      Involvement in the training of undergraduate students as well as graduate students during rotation in our lab  
 2004-2006      Involvement in the training of undergraduate students during their summer research projects, Department of Molecular Biology, Umeå University.  
 1997-1999      Graduate assistant (tutor), Department of Biochemistry, University of Yaounde 1, Cameroon. The duties included laboratory and tutorial teachings to undergraduates

## EDITORIAL ACTIVITIES

2015-Present      Editorial board of *Journal of Diseases and Medicinal Plants*  
 2015-Present      Editorial board of *Kenkyu Journal of Pharmacology*

## ABSTRACTS AND PRESENTATIONS

### SELECT ORAL PRESENTATIONS

1. 06/18/2015: Plants and drug discovery: the winning combination? Institute of Medical Research and Studies on Medicinal Plants (IMPM), Yaounde, Cameroon.
2. 04/01/2015: From plants ... to plants: my way to drug discovery. Department of Pharmacology and Toxicology, University of Louisville, Louisville, KY.
3. 12/18/2007 Molecular Pathogenesis of a Potential Bioterrorism Agent: *Francisella tularensis* Department of Comparative Oncology, University of Minnesota College of Veterinary Medicine\*

4. 12/6/2002 «Phytochemische Untersuchung von *Scorodophloeus zenkeri* Harms und biologische Eigenschaften einiger isolierter Naturstoffe», Ph.D thesis, Saarbrücken, Germany.
5. 5/3/2002 «Isolement et identification de nouveaux composés souffrés à partir de l'huile essentielle et des extraits d'écorce de *Scorodophloeus zenkeri* Harms», Presentation at the International Symposium on medicinal and aromatic plants, Rabat, Morocco.
6. 6/9/2001 „Antimikrobielle Wirksamkeit von Schwefelverbindungen aus *Scorodophloeus zenkeri* Harms“, presentation at the DAAD-Bioforum, Berlin, Germany.

## SELECT POSTERS

### International meetings

1. Kouokam J. C. and Palmer K. E. (2011): Bioavailability and safety profile of the potent anti-HIV lectin Griffithsin after parenteral administration in a murine model. Keystone Symposium, Whistler, Canada.
2. Kouokam J. C. and Palmer K. E. (2010): *In Vitro* Study of Toxicological Properties of Griffithsin, a Potent Anti-HIV Lectin from the Red Alga Griffithsia sp. Microbicides 2010, Pittsburgh (PA).
3. Kouokam J. C., Wai S. N., Hacker J. and Uhlin B. E. (2004): Active Cytotoxic Necrotizing Factor 1 (CNF1) associated with Membrane Vesicles from Uropathogenic *E. coli*. Würzburg Summerschool Workshop «Proteome analysis of bacterial pathogens», Würzburg July 28th-30th, 2004
4. Berglund S., Kouokam J. C., Wai S. N. and Uhlin B. E. (2004): Studies of outer membrane vesicles from Uropathogenic *E. coli*. International Symposium «Threat of Infection», Würzburg, July 25th-28th, 2004
5. Kouokam J. C., Zapp J. and Becker H. (2002): Isolation of new sulfur-rich compounds from the Essential Oil and Extracts from the Bark of *Scorodophloeus zenkeri* Harms. International Symposium on medicinal and aromatic plants, Rabat, May 2nd-4th, 2002
6. Kouokam J. C., Jahns Th. and Becker H. (2002): Antibacterial and antifungal activity of the Essential Oil and some isolated Sulfur rich Compounds from *Scorodophloeus zenkeri* Harms. International Symposium on medicinal and aromatic plants, Rabat, May 2nd-4th, 2002

### Local meetings

7. J. Calvin Kouokam, Adam Husk, Keegan Baldauf, Krystal Teasley Hamorsky, and Nobuyuki Matoba (2013) An Oligomannose-specific Lectin-Fc Chimera with Anti-HIV/HCV Activity Exhibits Excellent *in vitro* Safety Properties, BCC retreat, Louisville.
8. Kouokam J. C. and Palmer K. E. (2010): Bioavailability and safety profile of the potent anti-HIV lectin Griffithsin after parenteral administration in a murine model. BCC Retreat 2010, Louisville (KY)
9. Kouokam J. C. and Palmer K. E. (2010): Safety Evaluation of the potent anti-HIV lectin Griffithsin in three cervico-vaginal cell models. Research! Louisville 2010

## PUBLICATIONS

### Articles Published in Peer-Reviewed Journals:

1. Mazalovska M and **Kouokam JC**. Lectins as Promising Therapeutics for the Prevention and Treatment of HIV and Other Potential Coinfections. *Biomed Res Int*. 2018 May 8;2018:3750646.
2. **Kouokam JC\***, Lasnik AB, Palmer KE\*. Studies in a Murine Model Confirm the Safety of Griffithsin and Advocate Its Further Development as a Microbicide Targeting HIV-1 and Other Enveloped Viruses. *Viruses*. 2016 Nov 17;8(11). pii: E311. **\*Co-corresponding author**
3. Barton C, **Kouokam JC**, Hurst H, Palmer KE. Pharmacokinetics of the Antiviral Lectin Griffithsin Administered by Different Routes Indicates Multiple Potential Uses. *Viruses*. 2016 Dec 17;8(12). pii: E331.
4. Baldauf KJ, Royal JM, **Kouokam JC**, Haribabu B, Jala VR, Yaddanapudi K, Hamorsky KT, Dryden GW, Matoba N. Oral administration of a recombinant cholera toxin B subunit promotes mucosal healing in the colon. *Mucosal Immunol*. 2016 Nov 2
5. Hamorsky KT, **Kouokam JC**, Jurkiewicz JM, Nelson B, Moore LJ, Husk AS, Kajiura H, Fujiyama K, Matoba N. N-Glycosylation of cholera toxin B subunit in *Nicotiana benthamiana*: impacts on host stress response, production yield and vaccine potential. *Sci Rep*. 2015 Jan 23;5:8003.
6. Barton C\*, **Kouokam JC\***, Lasnik AB, Foreman O, Cambon A, Brock G, Montefiori DC, Vojdani F, McCormick AA, O'Keefe BR, Palmer KE. Activity of and effect of subcutaneous treatment with the broad-spectrum antiviral lectin griffithsin in two laboratory rodent models. *Antimicrob Agents Chemother*. 58(1):120-7, 2014. \*: **Equal contribution**
7. Hamorsky K.T. \*, **Kouokam JC \***, Bennett L. J., Baldauf K. J., Kajiura H., Fujiyama K., and Matoba N. Rapid and Scalable Plant-based Production of a Cholera Toxin B Subunit Variant to Aid in Mass Vaccination against Cholera Outbreaks. *PLoS Negl Trop Dis*. 7(3):e2046, 2013. \*: **Equal contribution**
8. **Kouokam J.C.**, Huskens D, Schols D, Johannemann A, Riedell S.K., Walter W., Walker J.M., Matoba N., O'Keefe B.R., and Palmer K.E.: Investigation of Griffithsin's interactions with human cells confirms its outstanding safety and efficacy profile as a microbicide candidate, *Plos One* 6(8): e22635, 2011
9. Palmer K. E., Jenson A. B., **Kouokam J. C.**, Lasnik A. B., Ghim S. J.: Recombinant vaccines for the prevention of human papillomavirus infection and cervical cancer. *Exp Mol Pathol*. 86(3):224-233, 2009.
10. Santic M, Akimana C, Asare R, **Kouokam J. C.**, Atay S, Kwaik Y. A.: Intracellular fate of *Francisella tularensis* within arthropod-derived cells. *Environ Microbiol*. 11(6):1473-1481, 2009.
11. **Kouokam J. C.**, Wai S. N., Fällman M., Dobrindt U., Hacker J. and Uhlin B. E.: Active Cytotoxic Necrotizing Factor 1 (CNF1) associated with Membrane Vesicles from Uropathogenic *E. coli*, *Infection and Immunity* 74 (4): 2022-2030, 2006.
12. **Kouokam J. C.** and Wai S. N.: Outer Membrane Vesicle Mediated Export of a Pore-forming Cytotoxin from *Escherichia coli*. *Journal of Toxicology Toxin reviews* 25 (1): 31-46, 2006.
13. **Kouokam J. C.**, Jahns Th. and Becker H.: Antimicrobial activity of the Essential Oil and some isolated Sulfur rich Compounds from *Scorodophloeus zenkeri* Harms. *Planta Medica* 68 (12):1082-1087, 2002.

14. **Kouokam J. C.**, Zapp J. and Becker H.: Oxygen-containing sulfur-rich compounds from the bark of the tropical garlic tree *Scorodophloeus zenkeri* Harms. *Phytochemistry* 60, 403-407, 2002.
15. **Kouokam J. C.**, Zapp J. and Becker H.: Isolation of new Alkylthiosulfides from the Essential Oil and Extracts from the Bark of *Scorodophloeus zenkeri* Harms. *Z. Naturforsch.* 56c, 1003-1007, 2001.

#### Articles in a Book, Pamphlet or Bulletin:

1. **Kouokam J.C.** and Palmer K.E. (2010): Plant-expressed Griffithsin: a protein with potent broad spectrum inhibitory effects against enveloped viruses, book chapter.
2. **Kouokam C.** How "alternative" is Phytotherapy? *Science in Africa*, Online magazine, <http://www.scienceinafrica.co.za/2004/june/phytotherapy.htm>

#### REFEREES

1. **Kenneth E. Palmer, Ph.D.**  
Pharmacology & Toxicology; Microbiology & Immunology  
Kosair Charities Clinical & Translational Research Building, Room 624  
505 S. Hancock St. Louisville, KY40202  
(502) 210 0682  
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2. **Nobuyuki Matoba, Ph.D.**  
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3. **Joshua Hood, MD, Ph.D.**  
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#### WORKING LANGUAGES

French, English, German.