

## BIOGRAPHICAL SKETCH

### **Etienne Z. Gnimpieba**

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### **Professional Preparation**

University of Dschang, Cameroun	Mathematics and Computer Science	BA-2002
University of Yaounde I, Cameroon.	Artificial Intelligence and Human Machine Interface	Maitrise-2005
University of Evry, France	Computer Engineering and Mathematics for Integrative Biology	M.Sc.-2007
University of Technology of Compiegne, France	Biotechnology and Bioinformatics	PhD-2011
SUPSANTE, Paris, France	Clinical data Management	Certificate-2012

### **Appointments**

- 08/2014- Assistant Professor Computer Science/Bioinformatics, University of South Dakota, USA  
06/2014- Graduate Program Director, Computer Science, University of South Dakota, USA  
2012-08/14 Postdoctoral Research Associate, University of South Dakota, USA  
2008-11 Research Scientist, Nutritional Health department of IPLB / Abbot Pharma, France  
2007-07 Research Analyst, IRCCyN in collaboration with LINA, France (8 months)  
2005-06 Information System Manager, RISCsa, Cameroon  
2004-06 Software Project Manager, Advanced Engineering Ltd, Cameroun

### **Products**

**Gnimpieba, E. Z.**, Jennewein, D. M., Abalo, C., & Lushbough, C. M. (2014). RNA-Seq gene and transcript expression analysis using the BioExtract Server and iPlant Collaborative. Proceeding of ACM-BCB'14, The 2014 International Conference on Bioinformatics and Computational Biology, September 20 - 23 2014, Newport Beach, CA, USA. doi:<http://dx.doi.org/10.1145/2649387.2660822>

Mathialakan, T., Lushbough, C. M., & **Gnimpieba, E. Z.** (2014). Heuristic Parallelizable Algorithm for Similarity Based Biosystems Comparison. Proceeding of ACM-BCB'14, The 2014 International Conference on Bioinformatics and Computational Biology, September 20 - 23 2014, Newport Beach, CA, USA. doi:<http://dx.doi.org/10.1145/2649387.2660849>

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Weinandt, N., Jackson, L. M., **Gnimpieba, E. Z.**, & Lushbough, C. (2014). Pheno2GRN : a workflow for phenotype to gene network study and reverse engineering comparison. Proceeding of ACM-BCB'14, The 2014 International Conference on Bioinformatics and Computational Biology, September 20 - 23 2014, Newport Beach, CA, USA. doi:<http://dx.doi.org/10.1145/2649387.2660851>

Lushbough, C. **Gnimpieba, E.**, and Dooley, R., "Life Science Data Analysis Workflow Development using the BioExtract Server leveraging the iPlant Collaborative Cyberinfrastructure"; Concurrency and Computation: Practice and Experience; Feb. 2014; DOI. 10.1002/cpe.3237.

S. R. Mallipeddi, C. M. Lushbough, and **E. Z. Gnimpieba**, “Reference Integrator : a workflow for similarity driven multi-sources publication merging.” Proceeding 2014 Int. Conf. Inf. Knowl. Eng. IKE’14, pp. 1–2, 2014

**E. Z. Gnimpieba** and C. M. Lushbough, “WMS4HPC , a Workflow Management System bridge for High Performance Computing in life science data management,” Proceeding BIOCOMP’14 - 2014 Int. Conf. Bioinforma. Comput. Biol. ISBN 1-60132-265-8, H. R. A. Al., Ed. CSREA Press., no. I, 2014.

M. Thavappiragasam, C. M. Lushbough, and **E. Z. Gnimpieba**, “SBMLChecker , a Semantic approach for SBML model reliability evaluation .,” Proceeding BIOCOMP’14 - 2014 Int. Conf. Bioinforma. Comput. Biol. ISBN 1-60132-265-8, H. R. A. Al., Ed. CSREA Press., pp. 2–5, 2014.

J. Larson, A. Chango, B. Conn, C. M. Lushbough, and **E. Z. Gnimpieba**, “Biological system analysis using integrated bioinformatics tools : Levels of the central dogma in Folate Mediate One-Carbon Metabolism ( FOCM ),” Proceeding BIOCOMP’14 - 2014 Int. Conf. Bioinforma. Comput. Biol. ISBN 1-60132-265-8, H. R. A. Al., Ed. CSREA Press., pp. 4–7.

**E. Z. Gnimpieba**, Anderson B. S., Chango, A., & Lushbough, C. M. (2013). RESTful API in Life Science Research Systems and Data Integration Challenges: Linking Metabolic Pathway, Metabolic Network, Gene and Publication. *Journal of Communication and Computer*, 10, 1196-1199.

Lushbough, C., **Gnimpieba**, E., and Dooley, R.; “BioExtract Server, a Web-based Workflow Enabling System, Leveraging iPlant Collaborative Resources,” in IEEE Cluster 2013 conference proceeding, 2013.

Y. Kone Kisselmina, D. Cyril, **E. Z. Gnimpieba**, D. Micheal,D. Albert, L.Jean-Claude, “Power density control in microwave assisted air Drying to improve quality of food,” *Journal of Food Engineering*, vol. 199, no. 4, pp. 750-757, Dec. 2013.

**E. Z. Gnimpieba**, Jennewein D., Fuhrman, L., & Lushbough .C. M, “Multidisciplinarity in Knowledge Transmission Management System (KTMS) evaluation.,” in *Proceeding of The 2013 International Conference on e-Learning, e-Business, Enterprise Information Systems, and e-Government, EEE’13*, ISBN 1-60132-240-2, pxx, H.Ibrahim (Ed.), Las Vegas: CSREA Press, 2013.

**E. Z. Gnimpieba**, Jennewein, D., Fuhrman, L., & Lushbough, C. M., Bioinformatics Knowledge Transmission (training, learning, and teaching): overview and flexible comparison of computer based training approaches” *Proceeding of The 2013 International Conference on Information and Knowledge Engineering, IKE’13*, ISBN 1-60132-261-8, px, H. R. A. Al. Ed. Las Vegas: CSREA Press, 2013.

**E. Z. Gnimpieba**, B. S. Anderson, A. Chango, and C.M. Lushbough, RESTful API in life science research systems and data integration challenges : linking metabolic pathway, metabolic network, gene and publication, *Journal of computer and communication*, vol. ISSN 1930-1553, no.10, pp. x, 2013.

J.-L. Abalo Chango1, **E. Z. Gnimpieba**, Damien Eveillard2, “Dynamical In Silico study of vitamin B12 (cobalamin) on MS and MSR activities in the methionine metabolism extend to FOCM.,” in *Vitamin B12 symposium*, 2012, vol. 12, p. 12.

A. Chango, **E. Z. Gnimpieba**, and D. Eveillard, “Mathematical modelling of one-carbon metabolism in trisomy 21,” *The FASEB Journal*, vol. 26, no. p.lb42, Mar. 2012.

A. Chango and **E. Z. Gnimpieba**, “ Mathematical modelling of the one-carbon metabolism network by using logic programming,” *The FASEB Journal*, vol. 25,P. 987.6, Mar. 2011.

A. Chango, S. Bousserouel, **E. Z. Gnimpieba** , A.M.A Nour, and L. Abdennabi-Najar, “Effects of arsenic exposure and folate deficiency on methyl metabolism in human fibroblast cell lines,” *The FASEB Journal*, vol. 25 , p. 598.2,Mar. 2011.

**E. Z. Gnimpieba**, D. Eveillard, J.-L. Guéant, and A. Chango,” Using logic programming for modeling the one-carbon metabolism network to study the impact of folate deficiency on methylation processes.,” *Molecular bioSystems*, vol. 7, no. 8, pp. 2508–21,Aug. 2011.

A. Chango, S. Bousserouel, **E. Z. Gnimpieba**, A.M.A Nour, L. Abdennebi-Najar, and Etienne Z. Gnimpieba, Afif Abdel Nour, Latifa Abdennebi-Najar, "Arsenic Exposure and Folate Deficiency and Methyl Group Metabolism in Human Fibroblast Cell Lines," *Journal of Developmental Origins of Health and Disease*, vol. 2, no. S1, p. S42, Mar. 2011.

**E. Z. Gnimpieba**, A.M.A Nour, D. Eveillard, and C. Abalo, "Modelling gene expression of the one-carbon metabolic network shows a strong influence of folate deficiency in the transmethylation and in the remethylation pathways," in *10th ICMAA-International Conference on Mechanisms of Antimutagenesis and Anticarcinogenesis*, 2010.

### Synergistic

- Program Committee member and paper reviewer at ACM-BCB'14 conference
- Mentoring Graduate and Undergraduate Research students in the SD-BRIN infrastructure
- Reviewer, Educational Researcher (ER).
- Course instructor: introduction to Systems Biology (in Introduction to Bioinformatics course - CPHD601/CSC601)
- Chair, BRIN-BWS (annual South Dakota Biomedical Research Infrastructure Network Bioinformatics Workshop Series)
- Committee member T21&SB, International Scientific meeting on Trisomy 21 and Systems Biology

### Collaborators & Other Affiliations

Dr. Rion Dooley (Texas Advanced Computing Center, USA)

Dr. Michael Kruer (Sanford Health Research, USA)

Dr. Chun Wu, (Mount Marty College, USA)

Dr. Abalo Chango (Institut Polytechnique Lasalle Beauvais, France)

Dr. Kisselmina Kone (Institut National Polytechnique Felix Houphouet Boigny, Ivory-Coast)