Curriculum Vitae

Jean-Louis Guéant, MD, PhD, AGAF, born in 1955, chair Prof of Biochemistry and Molecular Biology (PU-PH CE2), qualified in Hepato-Gastroenterology, is Director of INSERM UMRS 954 and head of the department of Molecular Medicine and Personalized Therapeutics in CHRU of Nancy.

Current academic positions: president of the 44th section of the French national university committee (CNU: medical biochemistry and molecular biology, physiology, cell biology and nutrition), corresponding member of the French National Academy of Medicine. **Past-academic positions**. Deputy Dean for scientific affairs of the Faculty of Medicine of Lorraine University, deputy president of the INSERM scientific committee for cardiovascular diseases/diabetology/nutrition (2008-2012), member of the national scientific council of INSERM (2012-end of 2016).

Area of expertise: Patho-mechanisms of acquired and inherited disorders of the one carbon metabolism, association with complex metabolic diseases and genetic predictors of environmental exposure. Bio and clinical activity in the National Reference Center of Inherited Metabolic Diseases of CHRU of Nancy affiliated with INSERM U954.

Current management/coordination of grants and networks: coordinator of FHU ARRIMAGE (collaborative network between local Inserm units and clinical research of the University Regional Hospital Center of Nancy) and the "contrat de programme Etat Région Lorraine" (CPER) "Sciences et technologies pour la Santé" (STS) (2015-2018), PI PHRC « PANGENOMIC-BL » (2013-2015). **Past management/coordination of grants and networks:** PI of ANR Nutrivigène (2008-2012) and PI of multicenter clinical research programs (PHRC) « MIBAP-polygen » (2007-2010), , co PI PHRC FEPA (2008-2013) and PI INCa CIRCE-EPIGENEX (2010-2013). **Coordination of international network:** Task force ENDA-EAACI on pharmacogenetics of drug reactions.

Invited conferences: More than 30 international invitations for lectures since 2011, among them: EACCI – DHM, Malaga, 2016, EACCI annual congress, Vienna, 2016, FASEB meeting 'Folic Acid, Vitamin B12, and One-Carbon Metabolism', Colorado, USA, 2016, Aarhus – Danemark in 2014 and 2016, Conference and Master Seminar, University of Mexico (UAM), october 2015, the "Stephen Morse" Conference 2014 of SUNY, NY, USA, FASEB meeting 'Folic Acid, Vitamin B12, and One-Carbon Metabolism', 2014, Colorado – USA, 9th International Conference on Homocysteine and One-Carbon Metabolism, Dublin, 2013.

Organization of international congresses: International B12 symposium in 2012 and 10th International Conference on One-Carbon Metabolism, vitamins B and Homocysteine in 2015.

Edition and peer review activity. Member of the editorial board of Human Genetics (2016), guest editor of Biochimie (2014 and 2016). Peer review activity: New Engl J Med, Cell Metabolism, Gastroenterology, Gut, J Hepatology, Hepatology, Circulation, Am J Clin Nutr, Scientific Reports, J Nutr, Br J Nutr, Nutrients, FASEB J, Mol Psychiatry, Biol Psychiatry, JACI, Eur J Clin Nutrition, Arch. Biophys. Biochem., J Med Genet, Human Mutation, Pharmacogenomics, Pharmacogenomics J, Clinical Experimental Allergy, Allergy, Journal of Chromatography, Biophysica Biochimica Acta, J Thromb. Hemost., Thromb. Hemost, Pediatric Research, Br J Haematology, etc..

Main scientific contributions. Digestive and cellular metabolism of vitamin B12 and folate. Molecular and cellular consequences of folate and B12 deficiencies. Pathomechanisms of inherited disorders of the one carbon metabolim and Addisson-Biermer anemia. Genetic determinants of the one carbon metabolism, vitamin B12, folate and homocysteine, associations with digestive diseases and neurodegenerative disorders. Pathomechanisms and diagnostic of protein energy malnutrition. Other contributions: pharmacogenetics of drug adverse reactions.

Scientific production. 348 items in PubMed (including in The Lancet, N Engl J Med, Gastroenterology, Ann Intern Med, PNAS, Gut, Blood, J Hepatol, Trends End Metab, etc..). H index 51 and 9400 cites in Google scholar (H index 40 in WOS). **List of ten recent relevant publications on the topic, in the last 10 years:**

- Melhem H, Hansmannel F, Bressenot A, Battaglia-Hsu SF, Billioud V, Alberto JM, **Gueant JL***, Peyrin-Biroulet L*. Methyl-deficient diet promotes colitis and SIRT1-mediated endoplasmic reticulum stress. Gut. 2016, 65:595-606. *Equal contribution

- Goffinet L, Oussalah A, Guéant-Rodriguez RM, Chery C, Basha M, Avogbe PH, Josse T, Jeannesson E, Rouyer P, Flayac J, Gerard P, Le Touze A, Bonin-Goga B, Goga D, Simon E, Feillet F, Vikkula M, Guéant JL. Cystathionine β-synthase genetic variant rs2124459 is associated with a reduced risk of cleft palate in French and Belgian populations. J. Med. Genet., 2016 Aug 17. pii: jmedgenet-2016-104111

- Feigerlova E, Demarquet L, Melhem H, Ghemrawi R, Battaglia-Hsu SF, Ewu E, Alberto JM, Helle D, Weryha G, Guéant JL. Methyl donor deficiency impairs bone development via peroxisome proliferator-activated receptor-γ coactivator-1α-dependent vitamin D receptor pathway. FASEB J., 2016 Jul 19. pii: fj.201600332R

- Guéant JL, Romano A, Cornejo-Garcia JA, Oussalah A, Chery C, Blanca-López N, Guéant-Rodriguez RM, Gaeta F, Rouyer P, Josse T, Canto G, Carmona FD, Bossini-Castillo L, Martin J, Laguna JJ, Fernandez J, Feo F, Ostrov DA, Plasencia PC, Mayorga C, Torres MJ, Blanca M. HLA-DRA variants predict penicillin allergy in genome-wide fine-mapping genotyping. J. Allergy Clin. Immunol., 2015, 135, 253-259

- Guéant JL, Namour F, Guéant-Rodriguez RM, Daval JL Folate and fetal programming: a play in epigenomics ? Trends Endocrinol. Metab., 2013, 24, 279-289

- Fofou-Caillierez MB, Mrabet NT, Chery C, Dreumont N, Flayac J, Pupavac M, Paoli J, Alberto JM, Coelho D, Camadro JM, Feillet F, Watkins D, Fowler B, Rosenblatt DS, **Guéant JL**. Interaction between methionine synthase isoforms and MMACHC: Characterization in cblG-variant, cblG and cblC inherited causes of megaloblastic anaemia. Hum Mol Genet. 2013, 22:4591-601

- Pooya S, Blaise S, Moreno Garcia M, Giudicelli J, Alberto JM, Gueant Rodriguez RM, Jeannesson E, Gueguen N, Bressenot A, Nicolas B, Malthiery Y, Daval JL, Peyrin-Biroulet L, Bronowicki JP, **Guéant JL**. Methyl donor deficiency impairs fatty acid oxidation through pgc-1alpha hypomethylation and decreased ER-alpha, ERR-alpha, and HNF-4alpha in the rat liver. J Hepatol. 2012;57:344-351

- Oussalah A., Besseau C, Chery C, Jeannesson E, Guéant-Rodriguez RM, Anello G, Bosco P, Elia M, Romano A, Bronowicki JP, Gerard P, Paoli J, Avogbé PH, Chabi N, Sanni A, Amouzou E, Peyrin-Biroulet L, Guéant Jl. Helicobacter pylori serologic status has no influence on the association between ucosyltransferase 2 polymorphism (FUT2 461 G->A) and vitamin B12 in Europe and West Africa. Am. J. Clin. Nutr., 2012, 95, 514-521

- Garcia MM, Gueant-Rodriguez RM, Pooya S, Brachet P, Alberto JM, Jeannesson E, Maskali F, Gueguen N, Marie PY, Lacolley P, Herrmann M, Juilliere Y, Malthiery Y, **Guéant JL**. Methyl donor deficiency induces cardiomyopathy through altered methylation/acetylation of PGC-1alpha by PRMT1 and SIRT1. J Pathol. 2011, 225:324-335

- Battaglia-Hsu SF, Akchiche N, Noel N, Alberto JM, Jeannesson E, Orozco-Barrios CE, Martinez-Fong D, Daval JL, **Guéant JL**. Vitamin b12 deficiency reduces proliferation and promotes differentiation of neuroblastoma cells and up-regulates PP2A, proNGF, and TACE. Proc Natl Acad Sci U S A. 2009;106:21930-21935