

## Curriculum Vitae

Personal information **Jean-marie Colet**

### Work experience

1. Employer: Eli Lilly
  - Start date: 012001
  - End date: 122006
  - Position: Senior scientist
  - Activities: toxicologist expert in metabonomics
  - Country: Belgium
2. Employer: Total Petrochemicals
  - Start date: 012007
  - End date: 062007
  - Position: senior scientist
  - Activities: toxicologist REACH
  - Country: Belgium
3. Employer: University of Mons
  - Start date: 072007
  - End date:
  - Position: Professor
  - Activities: professor of biology and toxicology Head of the laboratory of human biology & toxicology
  - Country: Belgium

### Education and training

1. Subject: University of Mons
  - Start date: 091984
  - End date: 061989
  - Qualification: master in biological sciences
  - Organisation: Biology
  - Country: Belgium
2. Subject: University of Mons
  - Start date: 061991
  - End date: 121994
  - Qualification: PhD in biological sciences
  - Organisation: toxicology of MRI contrast agents
  - Country: Belgium
3. Subject: University of Dallas Texas
  - Start date: 111995
  - End date: 101996
  - Qualification: postdoctoral trainee
  - Organisation: sodium and carbon NMR spectroscopy and imaging
  - Country: United States
4. Subject: Kings' college London
  - Start date: 012003
  - End date: 092003
  - Qualification: postdoctoral trainee
  - Organisation: in vivo NMR spectroscopy \_ functional imaging
  - Country: United Kingdom

### Additional information

#### Publications

1. J.-M. Colet, Y. Van Haverbeke and R.N. Muller. Evidence for Attachment of Magnetic Starch Microspheres to Kupffer Cells Receptors in Excised and Perfused Rat Liver. Investigative Radiology 29: S223\_S225 (1994)
2. J.-M. Colet and R.N. Muller. Effect of Opsonins on the Uptake of Magnetic Starch Microspheres by Rat Kupffer Cells. Magnetic Resonance Materials in Physics, Biology and Medicine 2: 1\_3 (1994)
3. J.-M. Colet, E. Cetiner, B.E. Hedlund and R.N. Muller. Assessment of Microvascular Integrity in the Isolated Perfused Rat Liver by Contrast Enhanced MRI. Attenuation of Reperfusion Injury by Conjugated Deferoxamine. Magnetic Resonance in Medicine 36:753\_757 (1996)
4. R.N. Muller, L. Vander Elst, J.-M. Colet, P. Herrent, F. Séghi, L. Pamart and Y. Van Haverbeke. Spectroscopic Monitoring of the Cellular Internalization of Paramagnetic Ions and Their Complexes: A Perfused Cells and Perfused Organs Approach. Academic Radiology 3:S227\_S281 (1996)
5. L. Vander Elst, J.-M. Colet and R.N. Muller. Spectroscopic and Metabolic Effects of MnCl<sub>2</sub> and MnDPDP on the Isolated and Perfused Rat Heart. Investigative Radiology 32 (10): 581\_588 (1997)
6. J.-M. Colet, J.D. Makos, C.R. Malloy and A.D. Sherry. Determination of the Intracellular Sodium Concentration in Perfused Mouse Liver by <sup>31</sup>P and <sup>23</sup>Na Magnetic Resonance Spectroscopy. Magnetic Resonance in Medicine 39: 155\_159 (1998)
7. J.-M. Colet, L. Vander Elst and R.N. Muller. Dynamic Evaluation of the Hepatic Uptake and Clearance of Manganese-Based MRI Contrast Agents: A <sup>31</sup>P NMR Study on the Isolated and Perfused Rat Liver. Journal of Magnetic Resonance Imaging 8: 663\_669 (1998)
8. J.-M. Colet, C. Piérart, F. Seghi, I. Gabric and R.N. Muller. Intravascular and Intracellular Hepatic Relaxivities of Superparamagnetic Particles: An Isolated and Perfused Organ Pharmacokinetics Study. Journal of Magnetic Resonance 134: 199\_205 (1998)
9. S.L. Fossheim, K.E. Kellar, S. Mansson, J.-M. Colet, P. Rongved, A.K. Fahlvik and J. Klaveness. Investigation of Lanthanide-Based Starch Particles as a Model System for Liver Contrast Agents. J. Magn. Res. Imaging 9(2):295\_303 (1999)
10. S.L. Fossheim, J.-M. Colet, S. Mansson, A.K. Fahlvik, R.N. Muller and J. Klaveness. Paramagnetic Liposomes as MRI Contrast Agents: Assessment of Contrast Efficacy in Various Liver Models. Invest Radiol. 33(11):810\_21 (1998)
11. J.-M. Colet, N. Bansal, C.R. Malloy and A.D. Sherry. Multiple

Quantum Filtered <sup>23</sup>Na NMR Spectroscopy of the Isolated, Perfused Rat Liver. *Magn Reson Med* 41(6):1127\_1135 (1999) 12. Bremerich J, Colet JM, Giovenzana GB, Aime S, Scheffler K, Laurent S, Bongartz G, Muller RN. Slow Clearance Gadolinium\_based Extracellular and Intravascular Contrast media for Three-dimensional MR angiography. *J Magn Reson Imaging* 13(4): 588\_93 (2001) 13. Le Duc G, Vander Elst L, Colet JM, Roch A, Gillis P, Le Bas JF, Muller RN. Ultrasmall Particulate Iron Oxides as Contrast Agents for Magnetic Resonance Spectroscopy. *J Magn Reson Imaging* 13(4):619\_626 (2001) 14. Colet JM, Lecomte S, Vander Elst L, Muller RN. Cesium\_133: A potential Reporter of the Hepatic Uptake of Contrast Agents. *Magn Reson Med* 45(4):711\_715 (2001) 15. Duarte MG, Gil MH, Peters JA, Colet JM, Vander Elst LV, Muller RN, Galdes CF. Synthesis, characterization, and Relaxivity of Two Linear Gd(DTPA)\_polymer conjugates. *Bioconj Chem.* 12(2):170\_177 (2001) 16. Gossuin Y, Colet JM, Roch A, Muller RN, Gillis P. Cesium adsorption in hydrated iron oxide particles suspensions: an NMR study. *J Magn Reson*;157(1):132\_6 (2002) 17. Lindon JC, Nicholson JK, Holmes E, Antti H, Bollard ME, Keun H, Beckonert O, Ebbels TM, Reilly MD, Robertson D, Stevens GJ, Luke P, Breau AP, Cantor GH, Bible RH, Niederhauser U, Senn H, Schlotterbeck G, Sidemann UG, Laursen SM, Tymiak A, Car BD, Lehman\_McKeeman L, Colet JM, Loukaci A, Thomas C. Contemporary issues in toxicology the role of metabonomics in toxicology and its evaluation by the COMET project. *Toxicol Appl Pharmacol.* 187(3):137\_46 (2003) 18. Burtica C, Laurent S, Colet JM, Vander Elst L, Muller RN. Development of new glucosylated derivatives of gadolinium diethylenetriaminepentaacetic for magnetic resonance angiography. *Invest Radiol.* 38(6):320\_33 (2003) 19. Wei T, Liao B, Ackermann BL, Jolly RA, Eckstein JA, Kulkarni NH, Helvering LM, Goldstein KM, Shou J, Estrem ST, Ryan TP, Colet JM, Thomas CE, Stevens JL, Onyia JE. Data\_driven analysis approach for biomarker discovery using molecular\_profiling technologies. *Biomarkers* 10(2\_3):153\_72 (2005) 20. Jolly RA, Goldstein KM, Wei T, Gao H, Chen P, Huang S, Colet JM, Ryan TP, Thomas CE, Estrem ST. Pooling samples within microarray studies: a comparative analysis of rat liver transcription response to prototypical toxicants. *Physiol Genomics.* 22(3):346\_55 (2005) 21. S. Hambÿe, D. Stanicki, J.\_M. Colet, J.\_J. Vanden Eynde, B. Blankert. 21. S. Hambÿe, D. Stanicki, J.\_M. Colet, J.\_J. Vanden Eynde, B. Blankert. Three optimized and validated (using accuracy profiles) LC methods for the determination of pentamidine and new analogs in rat plasma. *Talanta.* 2011 Jan 15;83(3):832\_9 22. Colet JM and Conotte R. Long term metabolic changes induced in idiosyncrasy\_like liver toxicity *Toxicology letters* 2009; 189 : S95\_S96 23. Tagliatti V., Conotte R., De Luca D., Colet JM Valproate\_induced liver mitochondrial dysfunction in rats: A metabonomic approach *Toxicology letters* 2011; 205( 1) : S277\_S277 24. De Luca D., Tagliatti V., Conotte R., Colet JM Chlordecone potentiation of carbon tetrachloride toxicity: A metabonomic\_based mechanistic study. *Toxicology letters* 2011; 205 (1) : S181\_S182 25. Conotte R., De Luca D., Tagliatti V., Colet JM Metabonomic evaluation of oxaliplatin hepatotoxicity by comparison with a sinusoidal obstruction syndrome (SOS) model *Toxicology letters* 2011; 205 (1) : S181\_S181 26. Vamecq J., Colet J.\_M., Vanden Eynde J.J, Briand G., Porchet N. and Rocchi S. PPARs: interference with Warburg' effect and clinical anti\_cancer trials PPAR Research, 2012 (accepted for publication) 27. Ouedraogo M., Baudoux T., StÛvigny C., Nortier J., Colet J.\_M., Efferth T., Qu F., Zhou J., Chan K., Shaw D., Pelkonen O. and Duez P. Review of current and "omics" methods for assessing the toxicity (genotoxicity, teratogenicity and nephrotoxicity) of herbal medicines and mushrooms. *J Ethnopharmacol* 2012 Apr 10; 140(3):492\_512 28. Duquesne M., Goossens C., Dika Z., Conotte R., Nortier J., Jelakovic B., Colet J.\_M., "Metabonomics: on the Road to Detect Diagnostic Biomarkers in Endemic (Balkan) Nephropathy. Evaluation in a Retrospective Pilot Project ". *Journal of cancer Science and Therapy*, 2012; S15 : 1\_9 29. Hambye S., Helvenstein M., Verdy L., Kahvecioglu Z., Conotte R., Vanden Eynde J.\_J., Colet J.\_M., Blankert B., "Ultra High Performance Liquid Chromatography method for the determination of Pentamidine and analog in rat biological fluids." *Journal of Pharmaceutical & Biomedical Analysis* (2013) 30. Soubhye J., Aldib L., Elfving B., Gelbcke M., Furtmuller P.G., Podrecca M., Conotte R., Colet J.\_M., Rousseau A., Rey F., Sarakbi A., Vanhaeverbeek M., Kauffmann J.\_M., Obinger C., Nève Jean, Prevost M., Zouaoui Boudjeltia K., Dufrasne Fr., Van Antwerpen P., "Design, Synthesis, and Structure\_Activity Relationship Studies of Novel 3\_Alkylindole Derivatives as Selective and Highly Potent Myeloperoxidase Inhibitors". *Journal of Medicinal Chemistry* 2013; 56(10) : 3943\_3958 31. Benourad F., Kahvecioglu Z., Youcef\_Benkada M., and Colet J.\_M. Prospective evaluation of potential toxicity of repeated doses of Thymus vulgaris L. extracts in rats by means of clinical chemistry, histopathology and NMR\_based metabonomic approach. *2014 Drug Testing & Analysis* (DOI: 10.1002/dta.1606) 32. Conotte R. and Colet J.\_M. A metabonomic evaluation of the monocrotaline\_induced sinusoidal obstruction syndrome (SOS) in rats. *Toxicol Appl Pharmacol.* 2014 276(2) : 147\_156 33. Colet J.\_M. Recherche de nouveaux biomarqueurs du cancer par approche métabolomique. *Biologiste Infos* 2014 ; 68 :20\_22 34. Soubhye J, Aldib I, Prévost M, Elfving B, Gelbcke M, Podrecca M, Conotte R, Colet JM, Furtmüller PG, Delporte C, Rousseau A, Vanhaeverbeek M, Nève J, Obinger C, Zouaoui Boudjeltia K, Van Antwerpen P, Dufrasne F. Hybrid molecules inhibiting myeloperoxidase activity and serotonin reuptake: a possible new approach of major depressive disorders with inflammatory syndrome. *J Pharm Pharmacol.* 2014 (Doi: 10.1111/jphp.12236) 35. Hambÿe S, Helvenstein M, Verdy L, Kahvecioglu Z, Conotte R, Vanden Eynde JJ, Colet JM, Blankert B. Ultra high performance liquid chromatography method for the determination of pentamidine and analog in rat biological fluids. *J Pharm Biomed Anal.* 2014 ;95 :54\_60. (doi: 10.1016/j.jpba.2014.02.002) 36. Thoof Aurélie, Colet Jean\_Marie, Conotte Raphael, Biston Patrick, Piagnerelli Michael, "Patients' metabolomic profile in the ICU" in *Critical Care Medicine*, 43, 12, 267\_268(2015) 37. Colet Jean\_Marie, "Metabonomics in the Preclinical and Environmental Toxicity Field" in *Drug Discovery Today*, 13, 3\_10, DDT428(2015) 38. Tagliatti Vanessa, Colet Jean\_Marie, "Drug\_Induced Impairment of Mitochondrial Fatty Acid Be\_ta\_Oxidation: A Metabonomic Evaluation in Rats" in *HSOA Journal of Medical Genomics and Biomarkers* , 3, 005(2016) 39. Valentini X., Rugira Pascaline, Frau Annica, Tagliatti Vanessa, Conotte Raphaël, Laurent Sophie, Colet Jean\_Marie, Nonclercq Denis, "Hepatic and renal toxicity induced by TiO2 nanoparticles in rats: a morphological and metabonomic study" in *European Journal of Toxicology* (2019) 40. Valentini Xavier, Rugira Uwamahoro Pascaline, Frau Annica, Tagliatti Vanessa, Conotte Raphael, Laurent Sophie, Colet Jean\_Marie, Nonclercq Denis, "Hepatic and renal toxicity induced by TiO2 nanoparticles in rats : a morphological and metabonomic study" in *Journal of Toxicology*, 2019, ID 5767012 (2019) 41. Kindt Nadège, Descamps Géraldine, Lechien Jérôme, Rémmeleink Myriam, Colet Jean\_Marie, Wattiez Ruddy, Berchem G, Journe Fabrice, Saussez Sven, "Involvement of HPV Infection in the Release of Macrophage Migration Inhibitory Factor in Head and Neck Squamous Cell Carcinoma." in *Journal of Clinical Medicine*, 1#0, 8, pii: E75. (2019) 42. Benourad Fouzia, Kahvecioglu ZEHA CAGLA, Youcef\_Benkada Mokhtar, Colet Jean\_Marie, "Protective potential of the essential oil of Thymus vulgaris L. against Dicofol\_induced poisoning in rats as established through clinical chemistry, histopathology and 1H\_NMR\_based metabonomics" in *South Asian Journal of experimental biology*, 8, 2, 49\_56 (2018) 43. Conotte Stéphanie, Tassin Alexandra, Conotte Raphaël, Colet Jean\_Marie, Zouaoui Karim, Legrand Alexandre, "Metabonomic profiling of chronic intermittent hypoxia in a mouse model" in *Respiratory Physiology and Neurobiology*, 256, 157\_173, doi.org/10.1016/j.resp.2018.02.015 (2018) 44. Duquesne Marilyn, Declèves Anne\_Emilie, Deprez Eric, Nortier Joëlle, Colet Jean\_Marie, "Interest of metabonomic approach in environmental nephrotoxicants : Application to aristolochic acid exposure" in *Food & Chemical Toxicology*, 108, PtA, 19\_29, doi: 10.1016/j.fct.2017.07.015. (2017) 45. Richard Vincent, Conotte Raphaël, Mayne David, Colet Jean\_Marie, "Does the 1H\_NMR Plasma Metabolome Reflect the Host\_Tumor Interactions in Human Breast Cancer?" in *Oncotarget*, 8, 30, 49915\_49930, doi: 10.18632/oncotarget.18307 (2017) 46. Jelakovic B, Dika Ž, Arlt VM, Stiborova M, Pavlovic NM, Nikolic J, Colet JM, Vanherweghem JL, Nortier JL. (2019). Balkan Endemic Nephropathy and the Causative Role of Aristolochic Acid. *Semin Nephrol.* 39(3) : 284\_296 47. Valentini X, Rugira P, Frau A, Tagliatti V, Conotte R, Laurent S, Colet JM, Nonclercq D. (2019). Hepatic and Renal Toxicity Induced by TiO2 Nanoparticles in Rats: A Morphological and Metabonomic Study. *J Toxicol.* ; 3 : 1\_19 48. Kindt N, Descamps G, Lechien JR, Rémmeleink M, Colet JM, Wattiez R, Berchem G, Journe F, Saussez S. (2019). Involvement of HPV Infection in the Release of Macrophage Migration Inhibitory Factor in Head and Neck Squamous Cell Carcinoma. *J Clin Med.* 10;8(1) 49. Schepkens C, Dallons M, Dehairs J, Talebi A, Jeandriens J, Drossart LM, Auquier G, Tagliatti V, Swinnen JV, and Colet JM. (2019). A New Classification Method of Metastatic Cancers Using a 1H\_NMR\_Based Approach: A Study Case of Melanoma, Breast, and Prostate Cancer Cell Lines. *Metabolites* ; 17;9(11) 50. Chaumont M, Tagliatti V, Channan EM, Colet JM, Bernard A, Morra S, Deprez G, Van Mylem A, Debbas N, Schaefer T, Faoro V, van de Borne P. (2020). Short halt in vaping modifies cardiorespiratory parameters and urine metabolome: a randomized trial. *Am J Physiol Lung Cell Mol Physiol.* ; 318(2) : L331\_L344 51. Dallons M., Schepkens C., Dupuis A., Tagliatti V., and Colet J.M. (2019). New Insights About Doxorubicin\_Induced Toxicity to Cardiomyoblast Derived H9C2 Cells and Dextrazoxane Cytoprotective Effect: Contribution of In Vitro 1H\_NMR Metabonomics. *Frontiers in Pharmacology* ; 11 : 1\_14 52. Dallons M., Delcourt M., Schepkens C., Podrecca M., and Colet J.M. (2020). A Comparative Study of Rat Urine 1H\_NMR Metabolome Changes Presumably Arising from IsoproterenolInduced Heart Necrosis Versus Clarithromycin\_Induced QT Interval Prolongation. *Biology (Basel)* ; 9(5): 98. 53. Soumoy L., Schepkens C., Krayem M., Najem A., Tagliatti V., Ghanem G.E., Saussez S., Colet J.M. and Journe F. (2020). Metabolic Reprogramming in Metastatic Melanoma

with Acquired Resistance to Targeted Therapies: Integrative Metabolomic and Proteomic Analysis. *Cancers* 12(5): 13\_23 54. Dallons M., Alpan E., Schepkens C., Tagliatti V. and Colet JM. GPR91 Receptor Mediates Protection against Doxorubicin-Induced Cardiotoxicity without Altering Its Anticancer Efficacy. An In Vitro Study on H9C2 Cardiomyoblasts and Breast Cancer-Derived MCF\_7 Cells. *Cells*; 9(10) : 2177\_ 2198 (2020) 55. Delcourt M., Tagliatti V., Delsinne V., Colet JM., Declèves AE. Influence of Nutritional Intake of Carbohydrates on Mitochondrial Structure, Dynamics, and Functions during Adipogenesis. *Nutrients*; 12(10) : 2984\_ 3008 (2020). 56. Leclercq S., Le Roy T., Furgieule S., Coste V., Bindels L., Leyrolle Q., Neyrinck A., Quoilin C., Amadiou C., Petit G., Dricot L., Tagliatti V., Cani P., Verbeke K., Colet JM., Stärkel P., de Timary P., Delzenne N.M.. *Cell Rep.* ; 33(2) : 108238\_108261 (2020). Gut Microbiota-Induced Changes in  $\beta$ -Hydroxybutyrate Metabolism Are Linked to Altered Sociability and Depression in Alcohol Use Disorder. *Cell Rep.* 33, 108238 57. M. Vara\_Pérez, M. Rossi, C. Van den Haute, H. Maes, M. L. Sassano, E. Romano, K. Rillaerts, A. Garg, C. Schepkens, F. Bosisio, J. Wouters, A. Oliveira, P. Vangheluwe, W. Annaert, J.V. Swinnen, J.M. Colet, J. Van den Oord, S. M. Fendt, M. Mazzone, P. Agostinis (2021). BNIP3 Supports Melanoma Growth by Fostering PHD2-Mediated HIF1A Stabilization. *EMBO Journal* (accepté pour publication) Book/Book Chapter : 1. Jadot Ines, Duquesne Marilyn, Declèves Anne\_Emilie, Caron Nathalie, Colet Jean\_Marie, Nortier Joelle, "A translational metabonomic assessment of aristolochic acid-induced nephropathies" in "Nephropathy", IntechOpen, 978\_953\_51\_6746\_4 (2018) 2. Colet Jean\_Marie, Duquesne Marilyn, Declèves Anne\_Emilie, Nortier Joelle, "Advances in Nephropathy" in "Advances in Nephropathy", IntechOpen, 978\_1\_78984\_235\_7 (2018)

## Projects

## Memberships

Member of the Federal Agency for Medicines and Health Products

## Other Relevant Information