CURRICULUM VITAE

Name	**LAMBERT Willy**
Title	**Em. Prof. PhD.** **Former Head of the Laboratory of Toxicology of the Faculty of Pharmaceutical Sciences, Ghent University, Belgium**
Home Address	**Muilaardstraat 76** **9000 GENT** **BELGIUM**
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Mail	**Willy.Lambert@UGent.be**
Date of Birth	**March 7, 1953 Brugge, Belgium**

EDUCATION

Pharmacist , Ghent University, 1977, Maxima cum Laude

PhD. in Pharmaceutical Sciences, Ghent University, 1982, Maxima cum Laude, « HPLC of retinoic acid and other retinoids in bio-samples »

Aggrégé de l'enseignement supérieur, Ghent University, 1990, « Bio-analysis of vitamin $K_{1(20)}$ »

SCIENTIFIC CARREER

1977-1991	**Assistant, research associate, and senior research associate, Laboratory of Medical Biochemistry and Clinical Analysis (Prof. A. De Leenheer)**
1991-Oct 2014	**Full professor at the Ghent University, Faculty of Pharmacy, Laboratory of Toxicology**

Retired on Oct. 1st 2014

TEACHING EXPERTISE

Toxicology	**since 1994**
Immunochemistry	**1991-2007**
Bioanalysis	**since 1991**
Toxicology for Clinical Biologists	**since 1994**

RESEARCH TOPICS

The research topics covered by the Laboratory of Toxicology are all situated in the bio-analytical field with a strong emphasis on chromatographic techniques.

Gas chromatography – mass spectrometry is used for the analysis of GHB and other small molecules in blood and urine samples. For this pupose a dried blood spot sampling has been developed coupled to a sensitive GC-MS method. The method has been published in Analytical and Bioanalytical Chemistry as well as in other journals (applications).

The Laboratory has a strong expertise in dried blood spot analysis and in overcoming issues such as the haematocrit effect. Dried blood spot analysis by LC-MS/MS is used for the determination of caffeine and its metabolite in blood and for phenotyping issues.

Liquid chromatography coupled to fluorescence detection was applied in the determination of anthracyclines in biological matrices. Both the extraction and the chromatography are optimized and resulted in a validated procedure which is applied in clinical studies. This research was also directed to the identification of an unknown metabolite found in urine of treated patients.

There are a substantial number of forensic toxicological case reports published in A1 journals.

The last subject concerns the determination of folates in rice. This is a long lasting collaboration with the Laboratory of Plant Genetics where the genetic modifications are performed to enhance the folate production in rice. Liquid chromatography coupled to mass spectrometry is the method of choice for the determination of these very unstable compounds. This research already resulted in three papers in Nature Biotechnology.

The list of all full A_1 papers published in peer reviewed journals is giving an overview of these topics as well as earlier research topics (e.g. Vitamin analysis) of the Laboratory of Toxicology and of Prof. W. Lambert.

REVIEWER ACTIVITIES

Prof. W. Lambert acts as a reviewer for several scientific journals such as J. Chromatography A and B, Analytical Chemistry, Bioanalysis, Clinical Chemistry, Analytical and Bioanalytical Chemistry, Forensic Science International, Rapid Communications in Mass Spectrometry, International Journal of Legal Medicine, Journal of Separation Science.

MEMBERSHIPS

American Association for Clinical Chemistry (AACC)
The International Association of Forensic Toxicologists (TIAFT): Regional representative for Belgium
The Toxicological Society of Belgium and Luxembourg (BLT): Board member
Belgian Society of Pharmaceutical Sciences.

B I B L I O G R A P H Y

A_1 PUBLICATIONS

1. **M.G. De Ruyter, W.E. Lambert, and A.P. De Leenheer. Retinoic Acid: An Endogenous Compound of Human Blood. Unequivocal Demonstration of Endogenous Retinoic Acid in Normal Physiological Conditions. Anal. Biochem., 98, 402-409 (1979).**

2. **V.O. De Bevere, M. De Paepe, A.P. De Leenheer, H.J. Nelis, W.E. Lambert, A.E. Claeys, and S. Ringoir. Plasma Vitamin A in haemodialysis patients. Clin. Chim. Acta, 114, 249-256 (1981).**

3. **V.O. De Bevere, H.J. Nelis, A.P. De Leenheer, W.E. Lambert, M. De Paepe, and S. Ringoir. Vitamin E levels in haemodialysis patients. J. Am. Med. Ass., 247, 2371 (1982).**

4. **A.P. De Leenheer, W.E. Lambert and I. Claeys. All-trans-retinoic acid: Measurment of reference values in human serum by HPLC. J. Lipid Res., 23, 1362-1367 (1982).**

5. **W.E. Lambert, J.-P. De Slypere, J.A. Jonckheere, A. Vermeulen, and A. De Leenheer. Improved liquid chromatographic determination of serum cortisol with double internal**

standardization compared to radioimmunoassay and fluorometry, and evaluated by isotope dilution/mass spectrometry. Anal. Biochem., 134, 216-223 (1983).

6. **W.E. Lambert and A.P. De Leenheer. Demonstration of retinoic acid isomers in human urine under physiological conditions. Experientia, 41, 359-360 (1985).**

7. **W. Lambert, P. Cammaert, and A.P. De Leenheer. Liquid-chromatographic measurement of riboflavin in serum and urine with isoriboflavin as internal standard. Clin. Chem., 31, 1371-1373 (1985).**

8. **W.E. Lambert, A.P. De Leenheer and M.F. Lefevere. Determination of vitamin K in serum using HPLC with post column reaction and fluorescence detection. J. Chromatogr. Sci., 24, 72-76 (1986).**

9. **L.M. Thienpont, H.J. Nelis, W.E. Lambert, M.F. Lefevere, R.M. Bauwens, en A.P. De Leenheer. Profiel van de Laboratoria voor Medische Biochemie en voor Klinische Analyse, Faculteit van de Farmaceutische Wetenschappen, RUG. Newsletter, Belgische Vereniging voor Klinische Chemie, Aug., 17-24 (1986).**

10. **W.E. Lambert, A.P. De Leenheer, and E.J. Baert. Wet-chemical post-column reaction and fluorescence detection analysis of the reference interval of endogenous serum vitamin $K_{1(20)}$. Anal. Biochem., 158, 257-261 (1986).**

11. **W.E. Lambert and A.P. De Leenheer. Simplified post-column reduction and fluorescence detection for the HPLC determination of vitamin $K_{1(20)}$. Anal. Chim. Acta, 196, 247-250 (1987).**

12. **B. Periquet, W. Lambert, A. Bailly, I. Tomatis, J. Ghisolfi, A. De Leenheer and J.P. Thouvenot. Fatty acid composition and kinetic behaviour of liver retinyl esters in vitamin A sufficient and deficient rats. Clin. Chim. Acta, 172, 275-290 (1988).**

13. **J. Widdershoven, W. Lambert, K. Motahara, L. Monnens, A. De Leenheer, I. Matsuda and F. Endo. Plasma concentrations of vitamin K_1 and PIVKA-II in bottle-fed and breast-fed infants with and without vitamin K prophylaxis at birth. Eur. J. Ped., 148, 139-142 (1988).**

14. **W.E. Lambert, A.P. De Leenheer, H.R. Walgraeve, and W. Tassaneeyakul. Monitoring of cyclosporin in whole blood by reversed-phase liquid chromatography on a butyl column. J. Chromatogr. Biomed. Appl., 427, 195-198 (1988).**

15. **A.P. De Leenheer, H.J. Nelis, W.E. Lambert and R.M. Bauwens. Chromatography of fat-soluble vitamins in clinical chemistry. J. Chromatogr. Biomed. Appl., 429, 3-58 (1988).**

16. **W. Lambert, J. De Bersaques, A. De Leenheer and C.J. Brindley. Comparison of single dose pharmacokinetics of Ro 10-1670 in young and elderly subjects (PK-4616). Research Report No. B-113'167 (1988) Hoffmann-La Roche, Basel, Zwitserland, 55 blz.**

17. **W.E. Lambert, M.A. Yousouf, B.M. Van Liedekerke, J.F. De Roose, and A.P. De Leenheer. Simultaneous determination of pentoxifylline and three metabolites in biological fluids by high performance liquid chromatography. Clin. Chem., 35, 298-301 (1989).**

18. **B.M. Van Liedekerke, H.J. Nelis, W.E. Lambert, and A.P. De Leenheer. High performance liquid chromatography of quaternary ammonium compounds on a polystyrene-divinylbenzene column. Anal. Chem., 61, 728-732 (1989).**

19. **W.E. Lambert, L. Vanneste, A.P. De Leenheer, and O. Amédée-Manesme. Serum phylloquinone levels in a normal population of children compared to the reference interval in adults. Clin. Chem., 35, 671 (1989).**

20. **A.P. De Leenheer, W.E. Lambert, J.P. De Bersaques, and A.H. Kint. High-performance liquid chromatographic determination of etretinate and all-trans- and 13-cis-acitretin in human plasma. J. Chromatogr., 500, 637-642 (1990).**

21. **B. Tjandra-Maga, R. Verbesselt, S. Scharpé, R. Verkerk, W.E. Lambert, B. Van Liedekerke, and A.P. De Leenheer. Comparison of Cyclosporin A measurement in whole blood by six different methods. J. Clin. Chem. Clin. Biochem., 28, 53-57 (1990).**

22. **W.E. Lambert, A.P. De Leenheer, J.P. De Bersaques, and A. Kint. Persistent etretinate levels in plasma after changing the therapy to acitretin. Arch. Derm. Res., 282, 343-344 (1990).**

23. **A.P. De Leenheer and W.E. Lambert. Mass Spectrometry of Methylester of Retinoic Acid. Methods Enzymol., 189 A, 104-111 (1990).**

24. **E. Meyer, W.E. Lambert, A.P. De Leenheer, J.P. De Bersaques, and A.H. Kint. Improved quantitation of 13-cis-and all-trans-acitretin in human plasma by normal-phase high-performance liquid chromatography. J. Chromatogr., 570, 149-156 (1991).**

25. **B. Periquet, W. Lambert, J. Garcia, G., Lecomte, A.P. De Leenheer, B. Mazières, J.P. Thouvenot, and J. Arlet. Increased concentrations of endogenous 13-cis- and all-trans-retinoic acids in diffuse idiopathic skeletal hyperostosis, as demonstrated by HPLC. Clin. Chim. Acta, 203, 57-66 (1991).**

26. **E. Meyer, W. Lambert, A. De Leenheer, J. De Bersaques, and A. Kint. The distribution of cis- and trans-acitretin in human epidermis. Brit. J. Clin. Pharmac., 33, 187-189 (1992).**

27. **W.E. Lambert, E. Meyer, A. De Leenheer, J. De Bersaques, and A. Kint. Recent findings on the pharmacokinetics of acitretin in humans. Retinoids Today and Tomorrow, 26 Suppl., 34-36 (1992).**

28. **O. Amédée-Manesme, W.E. Lambert, D. Alagille, and A.P. De Leenheer. Pharmacokinetics and safety of a new solution of vitamin $K_{1(20)}$ in children with cholestasis. J. Pediatr. Gastroenterol. Nutr., 14, 160-165 (1992).**

29. **A.P. De Leenheer, H.J. Nelis, and W.E. Lambert. Recent developments in the measurement of vitamin A and carotenoids. Voeding, 53, 168-172 (1992).**

30. **W.E. Lambert, L. Vanneste, and A.P. De Leenheer. Enzymatic sample hydrolysis and high performance liquid chromatography in a study of the phylloquinone level in human milk. Clin. Chem, 38, 1743-1748 (1992).**

31. **W.E. Lambert, E. Meyer, A.P. De Leenheer, J. De Bersaques, and A.H. Kint. Pharmacokinetics and drug interactions of etretinate and acitretin. J. Am. Acad. Dermatol., 27, S 19-22 (1992).**

32. **W.E. Lambert, A.P. De Leenheer, J.F. Van Bocxlaer, and M. Piette. Meprobamate intoxication: rare and difficult to find. J. Toxicol. Clin. Toxicol., 30, 683-684 (1992).**

33. **E. Meyer, J. De Bersaques, W.E. Lambert, A.P. De Leenheer, and A.H. Kint. Skin, adipose tissue and plasma levels of acitretin with rare occurrence of esterified acitretin during long-term treatment. Acta Derm. Venereol., 73, 113-115 (1993).**

34. **W. Lambert, A. De Leenheer, and R. Wyss. Analytical determination of cis- and trans-acitretin (Ro 13-7652 and Ro 10-1670) and of etretinate (Ro 10-9359) in plasma samples from study HL41. Bioanalytical report No B-614 (1993) Hoffmann-La Roche, Basel, Zwitserland, 23 blz.**

35. **A.E. Wallnöfer, J.M.T. van Griensven, H.C. Schoemaker , A.F. Cohen, W. Lambert, C. Kluft, P. Meijer, and T. Kooistra. Effect of isotretinoin on enogenous tissue-type plasminogen activator (t-PA) and plasminogen activator inhibitor 1 (PAI-1) in humans. Thromb. Haemost., 70, 1005-1008 (1993).**

36. **E. Meyer, W.E. Lambert, and A.P. De Leenheer. Simultaneous determination of endogenous retinoic acid isomers and retinol in human plasma by isocratic normal-phase HPLC with UV-detection. Clin. Chem., 40, 48-50 (1994).**

37. **W. Lambert, J. Van Bocxlaer, M. Piette, and A.P. De Leenheer. A fatal case of trazodone and dothiepin poisoning: toxicological findings. J. Anal. Toxicol., 18, 176-179 (1994).**

38. **W.E. Lambert, E. Meyer, A.P. De Leenheer, J. De Bersaques, and A.H. Kint. Pharmacokinetics of acitretin. Acta Derm. Venereol., Suppl., 186, 122-123 (1994).**

39. **H.O. Lyon, A.P. De Leenheer, R.W. Horobin, W.E. Lambert, E.K.W. Schulte, B. Van Liedekerke, and D.H. Wittekind. Standardization of reagents and methods used in cytological and histological practice with emphasis on dyes, stains and chromogenic reagents. Histochem. J., 26, 533-544 (1994).**

40. **J.-Z. Huo, J. Van Bocxlaer, W.E. Lambert and A.P. De Leenheer. Determination of embutramide in biological matrices by gas chromatography with nitrogen-phosphorus detection. J. Chromatogr., 661, 69-74 (1994).**

41. **W.E. Lambert, E. Meyer, Y. Xue-Ping, and A.P. De Leenheer. Screening, identification and quantitation of benzodiazepines in postmortem samples by HPLC with photodiode array detection. J. Anal. Toxicol., 19, 35-40 (1995).**

42. **W.E. Lambert, E. Meyer, and A.P. De Leenheer. Systematic toxicological analysis of basic drugs by gradient elution of an alumina-based HPLC packing material under alkaline conditions. J. Anal. Toxicol., 19, 73-78 (1995).**

43. **E. Meyer, J.F. Van Bocxlaer, W.E. Lambert, M. Piette and A.P. De Leenheer. Determination of chloral hydrate and metabolites in a fatal intoxication. J. Anal. Toxicol., 19, 124-126 (1995).**

44. **K. Clauwaert, W. Lambert, and A. De Leenheer. High performance liquid chromatographic determination of cocaine and its main metabolites in biological samples: a review. J. Liq. Chromatogr., 18, 2097-2114 (1995).**

45. **W.E. Lambert, M. Piette, C. Van Peteghem, and A.P. De Leenheer. Application of high performance liquid chromatography to a fatality involving azide. J. Anal. Toxicol., 19, 261-264 (1995).**

46. **B.A. Periquet, N.M. Jammes, W.E. Lambert, J. Tricoire, M.M. Moussa, J. Garcia, J. Ghisolfi and J.-P. Thouvenot. Micronutrient levels in HIV-1-infected children. AIDS, 9, 887-893 (1995).**

47. **W. Lambert, E. Meyer, A. De Leenheer. Cyanide and sodium azide intoxication. Ann. Emerg. Med., 26, 392 (1995).**

48. **E. Meyer, J. Van Bocxlaer, W. Lambert, L. Thienpont, A. De Leenheer. Alpha-phenylethylamine identified in judicial samples. For. Sci. Int., 76, 159-160 (1995).**

49. **J. Van Bocxlaer, E. Meyer, K. Clauwaert, W. Lambert, M. Piette, and A. De Leenheer. Analysis of zopiclone (Imovane®) in**

postmortem specimens by GC-MS and HPLC with diode-array detection. J. Anal. Toxicol., 20, 52-54 (1996)

50. W.E. Lambert, J. Van Bocxlaer, M. Piette, and A. De Leenheer. Reply to a letter to the editor by G. Esposito. Trazodone and dothiepin poisoning. J. Anal. Toxicol., 20, 59-60 (1996).

51. E. Meyer, J.F. Van Bocxlaer, W.E. Lambert, L. Thienpont, and A.P. De Leenheer. Identification of α-phenylethylamine in judicial samples. J. Anal. Toxicicol., 20, 116-120 (1996).

52. S.M. De Baere, W.E. Lambert, J.F. Van Bocxlaer, and A.P. De Leenheer. Quantitative gas chromatographic analysis of 3-cyano-3,3-diphenylpropionic acid, the acidic metabolite of bezitramide (Burgodin®), in urine. J. Anal. Toxicol., 20, 159-164 (1996).

53. K.M. Clauwaert, J.F. Van Bocxlaer, W.E. Lambert, and A.P. De Leenheer. Analysis of cocaine, benzoylecgonine, and cocaethylene in urine by HPLC with diode array detection. Anal. Chem., 68, 3021-3028 (1996).

54. J. Van Bocxlaer, E. Meyer, K. Clauwaert, W. Lambert, M. Piette, and A. De Leenheer. Zopiclone poisoning. (Reply to a Letter to the Editor). J. Anal. Toxicol., 20, 274 (1996).

55. W.E. Lambert and K.J. Scott. Evolutions in the analysis of fat-soluble vitamins and carotenoids. Int. J. Vitam. Nutr. Res., 66, 270-272 (1996).

56. J.F. Van Bocxlaer, W.E. Lambert, L. Thienpont, and A.P. De Leenheer. Quantitative determination of amphetamine and α-phenylethylamine enantiomers in judicial samples using capillary gas chromatography. J. Anal. Toxicol., 21, 5-11 (1997).

57. W.E. Lambert, J.F. Van Bocxlaer and A.P. De Leenheer. Potential of high-performance liquid chromatography with photodiode array detection in forensic toxicology. J. Chromatogr. B., 689, 45-53 (1997).

58. M. Malbrain, G. Lambrecht, E. Zandyk, P. Demedts, H. Neels, W. Lambert, A. De Leenheer, R. Lins and R. Daelemans. Treatment of severe thallium intoxication. J. Toxicol. Clin. Toxicol., 35, 97-100 (1997).

59. E. Meyer, W.E. Lambert, and A. De Leenheer. Succinic acid is not a suitable indicator of suxamethonium exposure in forensic blood samples. (Letter to the Editor). J. Anal. Toxicol., 21, 170-171 (1997).

60. J.F. Van Bocxlaer, K.M. Clauwaert, W.E. Lambert, and A.P. De Leenheer. Quantitative colorimetric determination of urinary p-aminophenol with an automated analyzer. Clin. Chem., 43, 627-634 (1997).

61. S. De Baere, E. Meyer, I. Dirinck, W. Lambert, M. Piette, C. Van Peteghem, and A. De Leenheer. Tissue distribution of trichloroethylene and its metabolites in a forensic case. J. Anal. Toxicol., 21, 223-227 (1997).

62. E. Meyer, J.F. Van Bocxlaer, I.M. Dirinck, W.E. Lambert, L. Thienpont, and A.P. De Leenheer. Tissue distribution of amphetamine isomers in a fatal overdose. J. Anal. Toxicol., 21, 236-239 (1997).

63. K.M. Clauwaert, J.F. Van Bocxlaer, W.E. Lambert, and A.P. De Leenheer. Liquid chromatographic determination of cocaine, benzoylecgonine, and cocaethylene in whole blood and serum samples by diode-array detection. J. Chromatogr. Sci., 35, 321-328 (1997).

64. W. Lambert, E. Meyer, J. Van Bocxlaer, A. De Leenheer, and M. Piette. Relevance of toxicological screening for chloroquine in nonmalarious areas. J. Anal. Toxicol., 21, 321-322 (1997).

65. W.E. Lambert. Book review: The Laboratory Practice of Clinical Toxicology by E. Berman, Charles C. Thomas, Publisher. J. Chromatogr. A., 775, 383 (1997).

66. S.M. De Baere, W.E. Lambert, and A.P. De Leenheer. Quantitative analysis of despropionyl-bezitramide, the active metabolite of bezitramide (Burgodin®), in biological samples by high-performance liquid chromatography with fluorescence detection. Anal. Chem., 69, 5186-5192 (1997).

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benzimidazole-2-one], the basic metabolite of Bezitramide (Burgodin®), in human urine. J. Anal. Toxicol., 22, 18-26 (1998).

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71. K.M. Clauwaert, J.F. Van Bocxlaer, W.E. Lambert, E.G. Van den Eeckhout, F. Lemière, E.L. Esmans and A.P. De Leenheer. Narrow-bore HPLC in combination with fluorescence and electrospray mass spectrometric detection for the analysis of cocaine and metabolites in human hair. Anal. Chem., 70, 2336-2344 (1998).

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73. I. Dirinck, E. Meyer, J. Van Bocxlaer, W. Lambert and A. De Leenheer. Application of gas chromatography-Fourier transform infrared spectrometry to the analysis of amphetamine analogues. J. Chromatogr. A, 819, 155-159 (1998).

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methamphetamine. Rapid Commun. Mass Spectrom., 13, 1540-1545 (1999).

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78. K.M. Clauwaert, J.F. Van Bocxlaer, W.E. Lambert, and A.P. De Leenheer. Segmental analysis for cocaine and metabolites by HPLC in hair of suspected drug overdose cases. For. Sci. Int., 110, 157-166 (2000).

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80. J.F. Van Bocxlaer, K.M. Clauwaert, W.E. Lambert, D.L. Deforce, E.G. Van den Eeckhout, and A. De Leenheer. Liquid chromatography-mass spectrometry in forensic toxicology. Mass Spectrom. Rev., 19, 165-214 (2000).

81. T.N. Decaestecker, K.M. Clauwaert, J.F. Van Bocxlaer, W.E. Lambert, E.G. Van den Eeckhout, C.H. Van Peteghem and A.P. De Leenheer. Evaluation of automated single mass spectrometry to tandem mass spectrometry function switching for comprehensive drug profiling analysis using a quadrupole TOF mass spectrometer. Rapid Commun. Mass Spectrom., 14, 1787-1792 (2000).

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of the designer drugs 3,4-methylenedioxymethamphetamine, 3,4-methylenedioxyethylamphetamine, and 3,4-methylenedioxy-amphetamine with HPLC and fluorescence detection in whole blood, serum, vitreous humor and urine. Clin. Chem., 46, 1968-1977 (2000).

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86. R. Dams, T.H.P. Benijts, W.E. Lambert, J.F. Van Bocxlaer, D. Van Varenbergh, C. Van Peteghem and A.P. De Leenheer. A fatal case of serotonin syndrome after combined moclobemide-citalopram intoxication. J. Anal. Toxicol., 25, 147-151 (2001).

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