

VAMS™ publications | updated March 2019

2014

- Denniff P., & Spooner, N. **Volumetric absorptive microsampling: A dried sample collection technique for quantitative bioanalysis.** [Anal. Chem., 2014, 86 \(16\), pp 8489–8495](#)

Microsampling Technology Validation | Dried Blood

2015

- De Kesel, P.M.M., Lambert, W. E., Stove, C. P. **Does volumetric absorptive microsampling eliminate the hematocrit bias for caffeine and paraxanthine in dried blood samples? A comparative study.** [Anal Chim Acta. 2015 Jun 30;881:65-73](#)

Hematocrit (HCT) | vs Dried Blood Spots

- Mano, Y.; Kita, K.; Kusano, K. **Hematocrit-independent recovery is a key for bioanalysis using volumetric absorptive microsampling devices, Mitra.** [Bioanalysis. 2015;7\(15\):1821-9](#)

Hematocrit (HCT) | Extraction Studies

- Houbart, V., Cobraiville, G., Servais, A.-C., Napp, A., Merville, M.-P., & Fillet, M. **Hepcidin determination in dried blood by microfluidic LC–MS/MS: comparison of DBS and volumetric absorptive microsampling for matrix effect and recovery.** [Bioanalysis. 2015 Nov;7\(21\):2789-99](#)

Peptide Hormone | Mitra Extractions | vs Dried Blood Spots

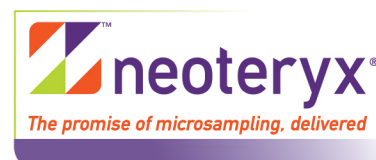
- Spooner, N., Denniff, P., Michielsen, L., De Vries, R., Ji, Q. C., Arnold, M. E., ... Rudge, J. B. **A device for dried blood microsampling in quantitative bioanalysis: overcoming the issues associated blood hematocrit.** [Bioanalysis. 2015;7\(6\):653-9](#)

Cross-laboratory Study | Hematocrit (HCT) | vs Dried Blood Spots

- Denniff, P., Parry, S., Dopson, W., & Spooner, N. **Quantitative bioanalysis of paracetamol in rats using volumetric absorptive microsampling (VAMS).** [J Pharm Biomed Anal. 2015 Apr 10;108:61-9](#)

Small Molecule | Animal Testing | TK Study

The CE|IVD Mitra Microsampler FDA class I medical device is for direct specimen collection of blood and other biological fluids. It is not specific to any clinical test, and is not for use in diagnostic procedures. Use of the Mitra Microsampler in Laboratory Developed Tests (LDTs) requires further processing including the establishment of performance characteristics and successful validation by the laboratory in a manner consistent with CLIA requirements. The Mitra device is patent pending. Mitra is a registered trademark and VAMS is a trademark of Neoteryx, LLC. Copyright © 2017 Neoteryx, LLC. All rights reserved.



- Miao, Z., Farnham, J. G., Hanson, G., Podoll, T., Reid, M. J. **Bioanalysis of emixustat (ACU-4429) in whole blood collected with volumetric absorptive microsampling by LC – MS / MS** [Bioanalysis. 2015;7\(16\):2071-83](#)

Small Molecule | Anticoagulant | Bioanalytical Validation

- Parker, S., Roberts, J., Lipman, J., & Wallis, S. C. **Quantitative bioanalytical validation of fosfomycin in human whole blood with volumetric absorptive microsampling.** [Bioanalysis. 2015 Oct;7\(19\):2585-95](#)

Antibiotic | Bioanalytical Validation

- Luo, Y., Korfmacher, W., Ho, S., Shen, L., Wang, J., Wu, Z., Guo, Y., Snow, G., O’Shea, T. **Evaluation of two blood microsampling approaches for drug discovery PK studies in rats.** [Bioanalysis. 2015 Sep; 7\(18\):2345-2359](#)

Animal Testing | PK Study | vs. Capillary Tubes

- Kipper, K., Barker, C., Lonsdale, D., Sharland, M., & Johnston, A. **Evaluation of the Mitra microsampling device for dry sample processing in a pharmacokinetic/pharmacodynamic study of beta-lactams.** [42nd Symposium on HPLC and Related Techniques, 21-25 June 2015, Geneva, Switzerland](#)

Antimicrobials | Blood Plasma | Stability Studies

2016

- Mercolini, L., Protti, M., Catapano, M. C., Rudge, J., & Sberna, A. E. **LC–MS/MS and volumetric absorptive microsampling for quantitative bioanalysis of cathinone analogues in dried urine, plasma and oral fluid samples.** [J Pharm Biomed Anal. 2016 May 10;123:186-94](#)

Illicit Drugs | Urine, Plasma, Oral Fluids | Bioanalytical Validation

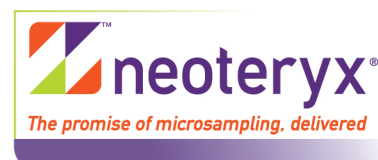
- Neupane, B., Mulla, H., Spooner, N., Abu-Rabie, P., Rudge, J., & Pandya, H. **Midazolam measurement and modelling using matrix samplers (The 4M’s Study).** [American Pediatrics Association Conference, 14-15 April 2016, Liverpool, England](#)

Pediatrics | Clinical Study | Wet vs. Dry Blood

- Stephenson, S., Rudge, J., **Development of a potential at-home assay for tacrolimus monitoring using a microsampling device.** [XXVIII Congress of the Scandinavian Transplantation Society, 11-13 May 2016, Stockholm, Sweden](#)

Tacrolimus | At-Home Monitoring | Wet vs. Dry Blood

The CE|IVD Mitra Microsampler FDA class I medical device is for direct specimen collection of blood and other biological fluids. It is not specific to any clinical test, and is not for use in diagnostic procedures. Use of the Mitra Microsampler in Laboratory Developed Tests (LDTs) requires further processing including the establishment of performance characteristics and successful validation by the laboratory in a manner consistent with CLIA requirements. The Mitra device is patent pending. Mitra is a registered trademark and VAMS is a trademark of Neoteryx, LLC. Copyright © 2017 Neoteryx, LLC. All rights reserved.



- John H., Willloh, S., Hörmann, P., Sieget, M., Vondran, A., & Theirmann, H. **Procedures for analysis of dried plasma using microsampling devices to detect sulfur mustard-albumin adducts for verification of poisoning.** [Anal. Chem., Aug 2016, 88 \(17\), pp 8787–8794](#)

Chemical Agent | Dried Plasma | Stability Study

- Nicholls H., Tang J.C.Y., Dutton, J., & Fraser, W.D. **Evaluation of the mitra micro-sampling device against dried blood spot cards for measurement of 25-hydroxy vitamin D3 by LC-MS/MS.** [MSACL EU Annual Conference, 12-15 Sep 2016, Salzburg, Austria](#)

Micronutrient Monitoring | vs. Plasma | Hematocrit (HCT)

- Parker S.L., Guerra Valero, Y.C., Lipman, J., Roberts, J.A., & Wallis, S.C. **Effect of time on recovery of plasma microsamples for the quantitative determination of vancomycin.** [Bioanalysis, 2016 Nov;8\(21\):2235-2242](#)

Glycopeptide | Recovery Study | vs. Dried Plasma

- Bolea-Fernandez, E., Phan, K., Balcaen, L., Resano, M., & Vanhaecke, F. **Determination of ultra-trace amounts of prosthesis-related metals in whole blood using volumetric absorptive micro-sampling and tandem ICP - mass spectrometry.** [Anal Chim Acta, 2016 Oct 19;941:1-9](#)

Metals | Ultra-trace Levels | ICP-MS/MS

- Marahatta, A., Megaraj, V., McGann, P.T., Ware, R.E., & Setchell, K. **Stable-Isotope Dilution HPLC-Electrospray Ionization Tandem Mass Spectrometry Method for Quantifying Hydroxyurea in Dried Blood Samples.** [Clin Chem, 2016 Dec;62\(12\):1593-1601](#)

Therapeutic Drug Monitoring | Pediatrics | vs. Dried Blood Spots

2017

- Protti, M., Rudge, J., Sberna, A. E., Gera, G., & Micolini, L. **Dried haematic microsamples and LC-MS/MS for the analysis of natural and synthetic cannabinoids.** [J Chromatogr B Analyt Technol Biomed Life Sci, 2017 Feb 15;1044-1045:77-86](#)

Illicit Drugs | vs. Dry Blood Spots | Bioanalytical Validation

- Thiry, J., Evrard, B., Nys, G., Fillet, M., & Kok, G.M. **Sampling only ten microliters of whole blood for the quantification of poorly soluble drugs: Itraconazole as case study.** [J Chromatogr A, 2017 Jan 6;1479:161-168](#)

Animal Testing | NC3Rs | Bioavailability of Drug Formulations

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- Ye, Z., & Gao, H. **Evaluation of sample extraction methods for minimizing hematocrit effect on whole blood analysis with volumetric absorptive microsampling.** [Bioanalysis. 2017 Feb;9\(4\):349-357](#)

Extraction Studies | Hematocrit (HCT)

- Verougstraete, N., Lapauw, B., Van Aken, S., Delanghe, J. Stove, C., & Stove, V. **Volumetric absorptive microsampling at home as an alternative tool for the monitoring of HbA1c in diabetes patients.** [Clin Chem Lab Med. 2017 Mar 1;55\(3\):462-469](#)

Disease Monitoring | At-home Sampling | vs. Venous Blood

- Kip, A.E., Kiers, K.C., Rosing, H., Schellens, J.H.M., Beijnen, J.H., & Dorlo, T.P.C. **Volumetric absorptive microsampling (VAMS) as an alternative to conventional dried blood spots in the quantification of miltefosine in dried blood samples.** [J Pharm Biomed Anal. 2017 Feb 20; 135: 160-166](#)

Low-resource Region | vs. Dry Blood Spot | Method Validation

- Plomley, J., Villeneuve, D., Chen, M., Mekhssian, K., Didur, O., Ruddock, R., & Keyhani, A. **Large molecule application of volumetric absorptive microsampling for the determination of a single-rodent PK profile for exenatide by LC-MS/MS.** [WRIB 11th Annual Conference, 3-7 April 2017, Los Angeles, CA](#)

Animal Testing | Biotherapeutic | Single Rodent PK Profile

- Koop, M., & Rychlik, M. **Assessing volumetric absorptive microsampling coupled with stable isotope dilution assay and liquid chromatography-tandem mass spectrometry as potential diagnostic tool for whole blood 5-methyltetrahydrofolic Acid.** [Front Nutr. 2017 Apr 18;4:9](#)

Micronutrient Monitoring | vs. Dried Blood Spot | Stable Isotope Dilution Assay (SIDA)

- Lehmann, S., Picas, A., Tiers, L., Vialaret J., & Hirtz, C. **Clinical perspectives of dried blood spot protein quantification using mass spectrometry methods.** [Crit Rev Clin Lab Sci. 2017 May; 54\(3\): 173-184](#)

Protein Quantitation | Multiple Reaction Monitoring | LC-MS/MS

- Tanna, S., Alalaqi, A., Bernieh, D., & Lawson, G. **LC-HRMS analysis of 216 patient micro-volume blood samples to allow clinical assessment of medication adherence.** [MSACL Annual Conference, 22-26 January 2017, Palm Springs, CA](#)

Medication Adherence | Clinical Study | vs. Dried Blood Spots

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- Qu, Y., Brady, K., Apilado, R., O'Malley, T., Reddy, S., Chitkara, P., Ibarra, C., Alexander R.V., & Dervieux, T. **Capillary blood collected on volumetric absorptive microsampling (VAMS) device for monitoring hydroxychloroquine in rheumatoid arthritis patients.** [J Pharm Biomed Anal. 2017 Jun 5;140:334-341](#)

Therapeutic Drug Monitoring | vs. Venous Blood | vs. Dried Blood Spot

- Nys, G., Gallez, A., Kok, MGM., Cobraiville, G., Servais, A.C., Piel, G., Pequeux, C., & Fillet, M. **Whole blood microsampling for the quantitation of estetrol without derivatization by liquid chromatography-tandem mass spectrometry.** [J Pharm Biomed Anal. 2017 Jun 5; 140:258-265](#)

Animal Testing | PK Studies in Mice | Bioanalytical Validation

- Anoshkina, Y., Costas-Rodriguez, M., & Vanhaecke, F. **Iron isotopic analysis of finger-prick and venous blood by multi-collector inductively coupled plasma-mass spectrometry after volumetric absorptive microsampling.** [J. Anal. At. Spectrom. 2017, 32, 314-321](#)

Fe Concentration | vs. Venous Blood | Extraction Studies

- Cañabate, A., Garcia-Ruiz, E., Resano, M., & Todolí, J.L. **Analysis of whole blood by ICP-MS equipped with a high temperature total sample consumption system.** [J. Anal. At. Spectrom. 2017, 32, 78-87](#)

hTISIS | Multi-Element Analysis

- Wharton, R.E., Feyereisen, M.C, Gonzalez, A.L., Abbot N.L, Hamelin E., & Johnson, R.C. **Quantification of saxitoxin in human blood by ELISA.** [Toxicol., 2017 Jul; 133: 110-115](#)

Marine Toxin | Validated Method | ELISA

- Volani, C., Caprioli, G., Calderisi, G., Sigurdsson B.B., Rainer, J., Gentilini, I., Hicks, A.A., Pramstaller, P.P., Weiss, G., Smarason, S.V., & Paglia, G. **Pre-analytic evaluation of volumetric absorptive microsampling and integration in a mass spectrometry-based metabolomics workflow.** [Anal Bioanal Chem., 2017 Aug 17 Epub ahead of print](#)

Metabolomics | Extraction Procedures | Stability

- Kita, K., Mano, Y. **Application of volumetric absorptive microsampling device for quantification of tacrolimus in human blood as a model drug of high blood cell partition.** [J Pharm Biomed Anal. 2017 Sep 5; 143:168-175](#)

Tacrolimus | Hematocrit Evaluation | Stability

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- Cala, MP., Meesters, RJ. **Comparative study on microsampling techniques in metabolic fingerprinting studies applying gas chromatography-MS analysis.** [Bioanalysis. 2017 Sep 9 \(17\): 1329-1340](#)

Metabolomics | Breast Cancer Fingerprinting

- Rebecca L. Cordell, Thalassa S.E. Valkenburg, Hitesh C. Pandya, Daniel B., Hawcutt, Malcolm G. Semple & Paul S. Monks (2017): **Quantitation of salbutamol using microvolume blood sampling – applications to exacerbations of pediatric asthma,** [Journal of Asthma 2017 Nov 3; 1-9](#)

Therapeutic Drug Monitoring | Pediatrics | Asthma

- Barco, S., Castagnola, E., Moscatelli, A, Rudge, J., Tripodi, G., & Cangemi, G. **Volumetric adsorptive microsampling-liquid chromatography tandem mass spectrometry assay for the simultaneous quantification of four antibiotics in human blood: Method development, validation and comparison with dried blood spot.** [J Pharm Biomed Anal., 2017 Oct 25;145:704-710](#)

Antibiotics | Method Development and Validation | vs. Dried Blood Spot

- Hecht, M., Evard, H., Takkis, K., Veigure, R., Aro, R., Lohmus, R., Herodes K., Leito, I., & Kipper, K. **Sponge Spray - Reaching New Dimensions of Direct Sampling and Analysis by MS.** [Anal. Chem., Oct 2017 Epub ahead of print](#)

Clinical Samples | No Sample Preparation | "Collect-and-Spray"

- Nys, G., Cobraiville, G., Kok, M.G.M., Wéra, O., Servais, A.C., & Fillet, M. **Comparison of nanofluidic and ultra-high performance liquid chromatography-tandem mass spectrometry for high sensitive pharmacokinetic studies of estrogens starting from whole blood microsampling.** [J Chromatogr A. 2017 Nov 17; 1524:160-168](#)

Estrogens | PK Studies in Small Animals | Nanofluidic LC-Chip-MS/MS

- M.G.M. Kok, M. Fillet. **Volumetric absorptive microsampling: Current advances and applications.** [J Pharm Biomed Anal. 2018 Jan 5; 147:288-296](#)

Application Overview | Sample Preparation | Hematocrit

- Kasie Fang, Chester L Bowen, John F Kellie, Molly Z Karlinsey, & Christopher A Evans. **Drug monitoring by volumetric absorptive microsampling: method development considerations to mitigate hematocrit effects.** [Bioanalysis, Ahead of Print Published Online 15 Jan 2018 | https://doi.org/10.4155/bio-2017-0221](#)

Regulated Bioanalysis | Pharmacokinetics / Toxicokinetics | Hematocrit

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2018

- M. Resano, M.A. Belarra, E. Garcia-Ruiz, M. Armendia & Rello, L. **Dried matrix spots and clinical elemental analysis. Current status, difficulties, and opportunities.** *TrAC Trends in Analytical Chemistry February 2018, Volume 99, pp 75-87*

Advantages of Dried Matrix Sampling | Quantitative Elemental Information

- Velghe, S. & Stove, C.P. **Volumetric absorptive microsampling as an alternative tool for therapeutic drug monitoring of first-generation anti-epileptic drugs.** *Anal Bioanal Chem March 2018, Volume 410, Issue 9, pp 2331-2341*

Anti-epileptic Drugs | Sample Preparation and Method Validation | UPLC-MS/MS

- Jana Kovac, Gordana Panic, Anna Neodo, Isabel Meister, Jean T Coulibaly, Jessica D Shulz & Jennifer Keiser. **Evaluation of a novel micro-sampling device, Mitra™, in comparison to dried blood spots, for analysis of praziquantel in Schistosoma haematobium-infected children in rural Côte d'Ivoire.** *J Pharm Biomed Anal 2018 Mar 20: 339-346*

Parasitic Drugs | vs. Dried Blood Spot | Low Resource Region

- Charlotte Jones, Gareth J Dunseath, Jessica Lemon. & Stephen D Luzio. **Microsampling Collection Methods for Measurement of C-peptide in Whole Blood.** *Journal of Diabetes Science and Technology March 9 2018*
<https://doi.org/10.1177/1932296818763464>

Circulating Biomarker | vs. Dried Blood Spot | Plasma Reference Range Agreement

- Jani Koponen, James Rudge, Stuart Kushon, & Hannu Kiviranta. **Novel volumetric adsorptive microsampling technique for determination of perfluorinated compounds in blood.** *Analytical Biochemistry, Volume 545, 2018, Pages 49-53*

Perfluoroalkyl Acids | Environmental Pollutant | Biomonitoring

- Kim Y, Jeon JY, Han SH, Ha N, Jang K, & Kim MG. **Quantitative analysis of acetylsalicylic acid in human blood using volumetric absorptive microsampling.** *Transl Clin Pharmacol. 2018 Mar;26(1):32-38*

Stabilizing Reagents | Validation | Aspirin

- Ida Kristine, LysgaardAndersen, CecilieRosting, Astrid Gjelstad, & Trine GrønhaugHalvorsen. **Volumetric absorptive MicroSampling vs. other blood sampling materials in LC-MS-based protein analysis – preliminary investigations.** *J Pharm Biomed Anal 2018 Jul 15: 239-246*

Proteins | Vs. Dried Blood Spot | LC-MS

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- Xie I, Xu Y, Anderson M, Wang M, Xue L, Breidinger S, Goykhman D, Woolf EJ, & Bateman KP. **Extractability-mediated stability bias and hematocrit impact: High extraction recovery is critical to feasibility of volumetric adsorptive microsampling (VAMS) in regulated bioanalysis.** [J Pharm Biomed Anal. 2018 Apr 5; 156:58-66](#)

Regulated Bioanalysis | Extraction Recovery | Stability

- Michele Protti, Maria Carmen Catapano, Boaz Gedaliahu Samolsky Dekel, James Rudge, Gilberto Gerra, Lorenzo Somaini, Roberto Mandrioli, & Laura Mercolini. **Determination of oxycodone and its major metabolites in haematic and urinary matrices: Comparison of traditional and miniaturised sampling approaches.** [J Pharm Biomed Anal Volume 152, 2018 Apr 15: 204-214](#)

Anti-doping | Bioanalysis | Blood & Urine

- Kita, K., Noritake, K. & Mano, Y. **Application of a Volumetric Absorptive Microsampling Device to a Pharmacokinetic Study of Tacrolimus in Rats: Comparison with Wet Blood and Plasma.** [Eur J Drug Metab Pharmacokinet \(2018\) https://doi.org/10.1007/s13318-018-0493-7](#)

Tacrolimus | PK Study in Rats | Dried Blood vs. Wet Blood vs. Plasma

- Nick Verougstraete, Veronique Stove, & Christophe Stove. **Wet absorptive microsampling at home for HbA1c monitoring in diabetic children.** [Clinical Chemistry and Laboratory Medicine, 2018 June 14, Epub Ahead of Print https://doi.org/10.1515/ccim-2018-0207](#)

HbA1c | Remote Monitoring | Pediatrics

- Karin Bloem, Tiny Schaap, Ronald Boshuizen, Eva L Kneepkens, Gerritt J Wolbink, Annick de Vries, & Theo Rispens. **Capillary blood microsampling to determine serum biopharmaceutical concentration: Mitra micro sampler vs dried blood spot.** [Bioanalysis, 2018 June 04; 10\(11\)](#)

Therapeutic mAbs | VAMS vs DBS | Serum/Plasma Concentration Estimations

- Fragala MS, Goldman SM, Goldman MM, Bi C, Colletti JD, Arent SM, Walker AJ, & Clarke NJ. **Measurement of Cortisol and Testosterone in Athletes: Accuracy of Liquid Chromatography-Tandem Mass Spectrometry Assays for Cortisol and Testosterone Measurement in Whole-Blood Microspecimens.** [J Strength Cond Res, 2018 Jul 4. doi: 10.1519/JSC.0000000000002726. \[Epub ahead of print\]](#)

Hormones | Performance Monitoring | Finger-prick vs Venous Specimens

- Michele Protti, Roberto Mandrioli, & Laura Mercolini. **Tutorial: Volumetric absorptive microsampling (VAMS).** [Analytica Chimica, 2018 Sep 5. doi: 10.1016/j.aca.2018.09.004. \[Epub ahead of print\]](#)

VAMS Use Cases | Analytical Workflow | Automation

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- Marcello Pirritano, Tobias Fehlmann, Thomas Laufer, Nicole Ludwig, Gilles Gasparoni, Yongping Li, Eckart Meese, Andreas Keller, and Martin Simon. **NGS analysis of total small non coding RNAs from low input RNA from dried blood sampling.** *Anal Chem.* 2018 Sep 10. doi: 10.1021/acs.analchem.8b03557. [Epub ahead of print]

Biomarkers | Library Preparation | Remote Patient Monitoring

- Sangeeta Tanna, Ahmed Alalaqi, Dennis Bernieh & Graham Lawson. **Volumetric absorptive microsampling (VAMS) coupled with high-resolution, accurate-mass (HRAM) mass spectrometry as a simplified alternative to dried blood spot (DBS) analysis for therapeutic drug monitoring of cardiovascular drugs.** *Clinical Mass Spectrometry Volume 10. December 2018. 1-8* [Epub ahead of print]

VAMS vs. DBS cards | Remote Drug Monitoring | Cardiovascular Drugs

- Lisa Delahaye, Evelyn Dhont, Pieter De Cock, Peter De Paepe, Christophe P. Stove. **Volumetric absorptive microsampling as an alternative sampling strategy for the determination of paracetamol in blood and cerebrospinal fluid.** *Anal Bioanal Chem* (2018). <https://doi.org/10.1007/s00216-018-1427-6>

Cerebrospinal Fluid (CSF) | Paracetamol | LC-MS/MS Method Development

- Joseph M Taylor, Andrew T Hughes, Anna M Milan, James Rudge, Andrew S Davison & Lakshminarayan R Ranganath. **Evaluation of the Mitra microsampling device for use with key urinary metabolites in patients with Alkaptonuria.** *Bioanalysis.* 2018 November 6; 10 (23)

Amino Acids | Inborn Metabolism Error | LC-MS/MS

- Hua Li, Tammy Bigwarfe, Maria Myzithras, Erica Waltz & Jennifer Ahlberg. **Application of Mitra microsampling for pharmacokinetic bioanalysis of monoclonal antibodies in rats.** *Bioanalysis.* 2018 November 21; 11 (1)

Monoclonal Antibody (mAb) | Animal PK Studies | ELISA

2019

- R.B.Verheijen, B.Thijssen, F.Atrafi, J.H.M.Schellens, H.Rosing, N.de Vries, J.H.Beijnen, R.H.J.Mathijssen, N.Steeghs, A.D.R.Huitema. **Validation and clinical application of an LC-MS/MS method for the quantification of everolimus using volumetric absorptive microsampling.** *J Chromatography B.* 2019 Jan 1; 234-239

Immunosuppressant | Bioanalytical Validation | Clinical Application

- Ganesh S. Moorthy, Christina Vedar, Nicole Zane, Janice L. Prodell, Athena F. Zuppa. **Development and validation of a volumetric absorptive microsampling assay for analysis of voriconazole and voriconazole N-oxide in human whole blood.** *J Chromatography B.* 2019 February 15; 67-75

Antifungal | Assay Development | Stability Studies

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- Nadine B. Andriguetti, Letícia L. Lisboa, Siomara R. Hahn, Lidiane R. Pagnussat, Marina V. Antunes, Rafael Linden. **Simultaneous determination of vancomycin and creatinine in plasma applied to volumetric absorptive microsampling devices using liquid chromatography-tandem mass spectrometry.** [J Pharm Biomed Anal 2019 February 20: 315-324](#)

Vancomycin & Creatinine | Therapeutic Drug Monitoring | Low-Resource Regions

- Jessica D. Schulz, Anna Neodo, Jean T. Coulibaly, Jennifer Keiser. **Pharmacokinetics of albendazole, albendazole sulfoxide and albendazole sulfone determined from plasma, blood, dried blood spots and Mitra® samples of hookworm-infected adolescents.** [Antimicrobial Agents and Chemotherapy. Feb 2019; AAC.02489-18; DOI: 10.1128/AAC.02489-18](#)

Anthelmintic | Pharmacokinetic Study | VAMS vs DBS

- Miranda G.M Kok, Cindy Nix, Gwenaël Nys, Marianne Fillet. **Targeted metabolomics of whole blood using volumetric absorptive microsampling.** [Talanta. 2019 May 15; 49-58](#)

Metabolomics | Amino Acids and Organic Acids | Stability Studies

