BIOGRAPHICAL SKETCH

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NAME: Mark W. Linder

eRA COMMONS USER NAME (credential, e.g., agency login): mwlind01

POSITION TITLE: Professor

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	Completion Date MM/YYYY	FIELD OF STUDY
Western Kentucky University, Bowling Green Kentucky	BS	12/1996	Biochemistry
University of Louisville, Louisville, Kentucky	PhD	06/1992	Biochemistry
University of Louisville, Louisville, Kentucky	Fellow	06/1994	Clinical Chemistry
University of Louisville, Louisville, Kentucky	Fellow	06/1996	Clinical Pharmacogenetics

A. Personal Statement

I have a demonstrated track record as PI for a number of R01 and SBIR funded grants and contracts. Work from my laboratory has focused on the translational application of pharmacogenetics and the development of tools to facilitate this process. My experience as a clinical laboratory director and as a basic science researcher provides me with an advantage for identifying critical questions which if properly addressed will advance the application of diagnostic knowledge in everyday healthcare decisions.

1. Strotman LN, Millner LM, Valdes R Jr, Linder MW. Liquid Biopsies in Oncology and the Current Regulatory Landscape. Mol Diagn Ther. 2016 Oct;20(5):429-36. PubMed PMID: 27324559.
2. Millner LM, Linder MW, Valdes R Jr. Circulating tumor cells: a review of present methods and the need to identify heterogeneous phenotypes. Ann Clin Lab Sci. 2013 Summer;43(3):295-304. PubMed PMID: 23884225; NIHMSID: NIHMS819687; PubMed Central PMCID: PMC5060940.

B. Positions and Honors

1992 - 1994	Postdoctoral Fellow, University of Louisville School of Medicine, Louisville , KY, United States
1994 - 1996	Advanced Postdoctoral Fellow in Pharmacogenetics, University of Louisville School of Medicine, Louisville, KY, United States
1996 - 1999	Research Associate, University of Louisville School of Medicine, Louisville, KY, United States
1999	Associate Director, Chemistry and Toxicology Laboratory, University of Louisville Hospital, Louisville, KY, United States
1999 - 2003	Assistant Professor, Department of Pathology and Laboratory Medicine, University of Louisville School of Medicine, Louisville, KY, United States
2003 - 2006	Associate Professor, Department of Pathology and Laboratory Medicine, University of Louisville School of Medicine, Louisville, KY, United States
2006- 2017	Director/Executive Vice President, Pharmacogenetics Diagnostics Laboratory, Louisville, KY, United States

2017- Pres	Medical Director, Prescient Medicine-Jefferson
2006 - Pres	Professor, Department of Pathology and Laboratory Medicine, University of Louisville School of Medicine, Louisville, KY, United States

Other Experience and Professional Memberships

1999 - 2001	Treasurer, AACC Molecular Pathology Division
2000 - 2004	Chair, Pharmacogenetics Committee, International Association for Therapeutic Drug Monitoring
2015- Pres	Member, Clinical Pharmacogenetics Implementation Consortium
2014-2016	Member, IFCC Pharmacogenetics Task Force
2017	Chair, IFCC Pharmacogenetics Task Force

Honors

1988 - 1991	Predoctoral Fellowship in biomedical cancer-related research, Brown Cancer Center
1992	Graduate Deans Citation, University of Louisville
1995	DABCC Accreditation, The American Board of Clinical Chemistry
1997	Best Poster Award, American Association of Clinical Chemistry
2001	Chair, Roundtable Organizing Committee, American Association of Clinical Chemistry
2005	Co-chair, 9th International Association for Therapeutic Drug Monitoring and Clinical Toxicology, IATDMCT

C. Contributions to Science

Description

My earliest work was to demonstrate the mechanism and age dependency of interactions between steroid hormone status and foreign compounds on the regulation of drug metabolizing enzyme expression and activity.

Citations

1. Linder MW, Falkner KC, Srinivasan G, Hines RN, Prough RA. Role of canonical glucocorticoid responsive elements in modulating expression of genes regulated by the arylhydrocarbon receptor. Drug Metab Rev. 1999 Feb;31(1):247-71. PubMed PMID: 10065375.
2. Falkner KC, Rushmore TH, Linder MW, Prough RA. Negative regulation of the rat glutathione S-transferase A2 gene by glucocorticoids involves a canonical glucocorticoid consensus sequence. Mol Pharmacol. 1998 Jun;53(6):1016-26. PubMed PMID: 9614203.
3. Prough RA, Linder MW, Pinaire JA, Xiao GH, Falkner KC. Hormonal regulation of hepatic enzymes involved in foreign compound metabolism. FASEB J. 1996 Oct;10(12):1369-77. PubMed PMID: 8903507.
4. Linder MW, Prough RA. Developmental aspects of glucocorticoid regulation of polycyclic aromatic hydrocarbon-inducible enzymes in rat liver. Arch Biochem Biophys. 1993 Apr;302(1):92-102. PubMed PMID: 8470911.

Description

I have been instrumental in introducing the concept of pharmacogenetics as a diagnostic tool for guiding medication management decisions

Citations

1. Reynolds, KK., Pierce, DL., Weitendorf F., and Linder MNw. Avoidable drug-gene conflicts and polypharmacy interactions in patients participating in a personalized medicine program. 23 Mar 2017 https://doi.org/10.2217/pme-2016-0095
2. Valdes R Jr, Linder MW. Fine-tuning pharmacogenetics: paradigm for linking laboratory results to clinical action. Clin Chem. 2004 Sep;50(9):1498-9. PubMed PMID: 15331497.
3. Valdes R Jr, Linder MW, Jortani SA. What is next in pharmacogenomics? Translating it to clinical practice. Pharmacogenomics. 2003 Jul;4(4):499-505. PubMed PMID: 12831326.
4. Linder MW, Valdes R Jr. Pharmacogenetics in the practice of laboratory medicine. Mol Diagn. 1999 Dec;4(4):365-79. PubMed PMID: 10671647.

Description

My work was among the first works in quantifying the influence of genetic variation on warfarin dose requirements. We ultimately incorporated this knowledge into a patented software application PerMIT and demonstrated improved warfarin management in a prospective pilot trial.

Citations

1. Borgman MP, Pendleton RC, McMillin GA, Reynolds KK, Vazquez S, Freeman A, Wilson A, Valdes R Jr, Linder MW. Prospective pilot trial of PerMIT versus standard anticoagulation service management of patients initiating oral anticoagulation. Thromb Haemost. 2012 Sep;108(3):561-9. PubMed PMID: 22836303; NIHMSID: NIHMS399238; PubMed Central PMCID: PMC3434319.
2. Zhu Y, Shennan M, Reynolds KK, Johnson NA, Herrnberger MR, Valdes R Jr, Linder MW. Estimation of warfarin maintenance dose based on VKORC1 (-1639 G>A) and CYP2C9 genotypes. Clin Chem. 2007 Jul;53(7):1199-205. PubMed PMID: 17510308.
3. Linder MW, Looney S, Adams JE 3rd, Johnson N, Antonino-Green D, Lacefield N, Bukaveckas BL, Valdes R Jr. Warfarin dose adjustments based on CYP2C9 genetic polymorphisms. J Thromb Thrombolysis. 2002 Dec;14(3):227-32. PubMed PMID: 12913403.
4. Linder MW. Genetic mechanisms for hypersensitivity and resistance to the anticoagulant Warfarin. Clin Chim Acta. 2001 Jun;308(1-2):9-15. PubMed PMID: 11412812.

Description

My research team has continued in the development of novel technologies and biomarkers for eventual diagnostic application

Citations

1. Strotman LN, Millner LM, Valdes R Jr, Linder MW. Liquid Biopsies in Oncology and the Current Regulatory Landscape. Mol Diagn Ther. 2016 Oct;20(5):429-36. PubMed PMID: 27324559.
2. Millner LM, Linder MW, Valdes R Jr. Circulating tumor cells: a review of present methods and the need to identify heterogeneous phenotypes. Ann Clin Lab Sci. 2013 Summer;43(3):295-304. PubMed PMID: 23884225; NIHMSID: NIHMS819687; PubMed Central PMCID: PMC5060940.

D. Additional Information: Research Support and/or Scholastic Performance

Completed Research Support

2015/10/01-2016/03/01
HHSN261201500035C, NIH/NCI
LINDER, MARK W. (PI)
Validation of an IDH1 Genotyping Assay to Guide Longitudinal Stratification of Patient Tumor Status
Role: CPI

2013/09/01-2015/06/01
HHSN261201300034C, NIH NCI
LINDER, MARK W. (PI)
Detection, Isolation and Analysis of Single CTC's
Development of a fully integrated platform technology for the enrichment, purification and genomic analysis of rare
Role: CPI

2013/07/01-2016/06/01
OGMB140215A, The PGXL Foundation
LINDER, MARK W. (PI)
Career Development and Transition Award in Companion Informatics
Role: CPI

2010/10/01-2015/09/01
R44-HL090055, NIH NHLBI
LINDER, MARK W. (PI)
Development of a Personalized Medicine Interface for the Safe and Effective Treatment of Patients Undergoing W
Role: CPI

2007/08/16-2015/07/31
R44 HL090055-06, National Heart, Lung and Blood Institute (NHLBI)
LINDER, MARK W (PI)
Personalized medicine informatics for anticoagulation therapy
Role: MPI

2003/04/01-2008/03/31
K23 AA014235-01, National Institute on Alcohol Abuse and Alcoholism (NIAAA)
LINDER, MARK W (PI)
Suppression of CYP2E1 in drug induced liver injury
Role: PI

2003/07/01-2008/06/30
R01 GM065459-01A1, National Institute of General Medical Sciences (NIGMS)
LINDER, MARK W (PI)
Novel feedback-regulation of xenobiotic bioactivation
Role: PI