

W. Greg Miller, PhD



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Greg Miller joined the Pathology Department in 1977. Dr. Miller has authored over 200 peer reviewed papers, book chapters and monographs in clinical chemistry and laboratory medicine. He is an active contributor to professional organizations in laboratory medicine and has chaired many working groups, and committees. He is a Past President of the American Association for Clinical Chemistry, and of the Clinical and Laboratory Standards Institute.

Clinical Specialties: Clinical Chemistry, Interlaboratory Standardization, Quality Control and Proficiency Testing, Medical Informatics

Education

Postdoctoral Fellow in Clinical Chemistry
Department of Pathology, Division of Clinical Chemistry
Ohio State University, College of Medicine
Columbus, Ohio 1973 - 1975

PhD Biochemistry
University of Arizona, Tucson, Arizona
1973

Licenses & Certifications

American Board of Clinical Chemistry, 1976

Selected Awards & Honors

- 2018 Russell J. Eilers Memorial Award, Clinical and Laboratory Standards Institute
- 2018 European Organization for External Quality Assurance Providers in Laboratory Medicine, Adam Uldall Lectureship Award
- 2016 Wadim Roman Traveling Lectureship Award, Australasian Association of Clinical Biochemists
- 2014 Robert Schaffer Award for Outstanding Achievements in the Development of Standards for Use in Laboratory Medicine, International Federation of Clinical Chemistry and Laboratory Medicine
- 2007 Outstanding Lifetime Achievement Award in Clinical Chemistry and Laboratory Medicine, American Association for Clinical Chemistry

Professional Service (current)

Joint Committee for Traceability in Laboratory Medicine, Chair
National Institute of Diabetes and Digestive and Kidney Diseases (NIH),
Laboratory Working Group, Chair

International Federation of Clinical Chemistry and Laboratory Medicine (IFCC);
Working group for Commutability in Metrological Traceability, Chair

International Federation of Clinical Chemistry and Laboratory Medicine (IFCC);
Scientific Division, JCTLM liaison

International Consortium for Harmonization of Clinical Laboratory Results and European Organization for External Quality Assurance Providers in Laboratory Medicine joint task force to monitor harmonization of measurands in laboratory medicine through data aggregation (HALMA); steering committee and chair, working group on commutability.

International Organization for Standardization (ISO), Technical Committee 212,

Clinical laboratory testing and in vitro diagnostic test systems

National Kidney Foundation-Laboratory Engagement Initiative

Recent Invited Presentations

The Global Creation and Monitoring of the Traceability of Test Results in the Medical Laboratory. September 28, 2021, Winterswijk, the Netherlands (virtual): "The Importance of Commutable Reference Materials and EQA Samples."

European Organization for External Quality Assurance Providers in Laboratory Medicine, 2021 Symposium (virtual) 13-14 October 2021: "Harmonization through EQA data aggregation."

Joint Committee for Traceability in Laboratory Medicine, International Consortium for Harmonization of Clinical Laboratory Results, International Federation of Clinical Chemistry and Laboratory Medicine Workshop - Overcoming challenges to global standardization of clinical laboratory testing: reference materials and regulation. Organizing committee chair, panelist and speaker. "New metrological traceability tools; ISO 21151 harmonization protocol and IFCC recommendations for correction for non-commutability of matrix-based CRM." 6-10 December 2021 (virtual).

Walter Reed National Military Medical Center, Nephrology Grand Rounds, "How does uncertainty influence estimated glomerular filtration rate." April 19, 2022 (virtual).

IFCC World Lab, Seoul, South Korea, June 28, 2022. Symposium on the Future of Standardization in Laboratory Medicine: Challenges and Opportunities; "Importance of commutability for metrological traceability in standardization and harmonization" (virtual).

32nd Malaysian Association of Clinical Biochemists Conference, September 12-13, 2022; "Recommendations for Implementing the CKD-EPI 2021 Race-Free Equations for Estimated Glomerular Filtration Rate" (virtual).

27th Meeting of the General Conference on Weights and Measures; "The work of the JCTLM to overcome challenges to the global standardization of clinical laboratory testing." November 16, 2022, Versailles, France.

Academy of Clinical Laboratory Physicians and Scientists; "What is Metrological Traceability and why should you care." June 8, 2023, Charlottesville, VA.

Cutting Edge of Laboratory Medicine in Europe, Analytical Performance Specifications: moving from models to practical recommendations; "The role of APS in international guidelines and standards dealing with metrological traceability in laboratory medicine." October 12-13, 2023, Prague, Czech Republic.

Joint Committee for Traceability in Laboratory Medicine Workshop on EQA Schemes Elucidating the Clinical Suitability of Laboratory Results. "Should individual labs adjust results to make them traceable or leave this to manufacturers. What about a lab wanting to align instruments from different suppliers?" December 4-5, 2023, Sevres, France.

Selected Publications

Peer reviewed papers

van der Hagen EAE, Weykamp C, Sandberg S, Stavelin AV, MacKenzie F, **Miller WG**. Feasibility for aggregation of commutable external quality assessment results to evaluate metrological traceability and agreement among results. Clin Chem Lab Med 2021;59:117-25.

Miller WG, Greenberg N. Harmonization/standardization: where are we now. J Applied Lab Med 2021;6:510-21.

Delgado C, Baweja M, Crews DC, Eneanya ND, Gadegbeku CA, Inker LA, Mendu ML, **Miller WG**, Moxey-Mims MM, Roberts GV, St Peter WL, Warfield C, Powe NR. A unifying approach for GFR estimation: recommendations of the NKF-ASN Task Force on Reassessing the Inclusion of Race in Diagnosing Kidney Disease. J Am Soc Nephrol. 2021 and Am J Kidney Dis. J Am Soc Nephrol 2021;32:2994-3015 and Am J Kidney Dis 2022;79:268-88.

Miller WG, Kaufman HW, Levey AS, Straseski JA, Wilhelms KW, Yu H-Y, Klutts JS, Hilborne LH, Horowitz GL, Lieske J, Ennis JL, Bowling JL, Lewis MJ, Montgomery E, Vassalotti JA, Inker LA. National Kidney Foundation Laboratory Engagement Working Group Recommendations for Implementing the CKD-EPI 2021 Race-Free Equations for Estimated Glomerular Filtration Rate: Practical Guidance for Clinical Laboratories. Clin Chem 2022;68:511-20.

Miller WG, Myers G, Cobbaert CM, Young IS, Theodorsson E, Wielgosz RI, Westwood S, Maniguet S, Gillery P. Overcoming challenges regarding reference materials and regulations that influence global standardization of medical laboratory testing results. *Clin Chem Lab Med* 2022;61:48-54.

Miller WG, Greenberg, N, Panteghini M, Budd JR, Johansen JV. Guidance on which calibrators in a metrologically traceable calibration hierarchy must be commutable with clinical samples. *Clin Chem* 2023;69:228-38.

Miller WG, Keller T, Budd J, Johansen JV, Panteghini M, Greenberg N, Delatour V, Ceriotti F, Deprez L, Rej R, Camara JE, MacKenzie F, Lyle AN, van der Hagen E, Burns C, Fauskanger P, Sandberg S, for the IFCC Working Group on Commutability in Metrological Traceability. Recommendations for setting a criterion for assessing commutability of secondary calibrator certified reference materials. *Clin Chem* 2023;69:966-75.

Sandberg S, Fauskanger P, Johansen JV, Keller T, Budd J, Greenberg N, Rej R, Panteghini M, Delatour V, Ceriotti F, Deprez L, Camara JE, MacKenzie F, Lyle AN, van der Hagen E, Burns C, **Miller WG**, for the IFCC Working Group on Commutability in Metrological Traceability. Recommendations for setting a criterion and assessing commutability of sample materials used in external quality assessment/proficiency testing schemes. *Clin Chem* 2023;69:1227-37.

Book Chapters and Monographs

Miller WG, Sandberg S. Quality control of the analytical examination process. In: *Tietz Textbook of Laboratory Medicine, 7th Edition*, ed. by Rifai N, Chiu RWK, Young I, Burnham CD, Wittwer CT. Elsevier 2023, p 129-163.

Miller WG. Standardization and harmonization of analytical examination results. In: *Tietz Textbook of Laboratory Medicine, 7th Edition*, ed. by Rifai N, Chiu RWK, Young I, Burnham CD, Wittwer CT. Elsevier 2023, p 164 (full version available on ExpertConsult.com).