Lyle W. Hayes Ph.D., DABCC

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Toxicologist with College and University Teaching Experience in Chemistry and Life and Medical Sciences

SUMMARY

New York State Certified Forensic Toxicologist with extensive experience in Drugs of Abuse Testing as both a Certified Lab Director with supervisory roles and Certifying Scientist. Extensive Teaching experience at Undergraduate and Graduate levels in Chemistry, Toxicology, Biochemistry and Clinical Chemistry,

CERTIFICATIONS

NYSDOH Laboratory Director Certificate of Qualification, Forensic Toxicology
Diplomat, American Board of Clinical Chemistry.
Full Member, Society of Forensic Toxicology

EXPERIENCE

Laboratory Director, Startnew Medical PC, Wappingers Falls, New York, May 2015-2019
Restoration Sport and Spine Care Dobbs Ferry, NY March 2016-present

Consultant and Expert Witness in Forensic Toxicology. 2009-present.

Director, Saratoga Laboratories. 2006-2009

Maintain laboratory certification and compliance with NYSHOH inspection and proficiency program for urine and hair drugs of abuse testing. Certify all results and maintain quality assurance and control. Supervise laboratory personnel and operations. Develop, validate, and implement analytic methods on GC/MS, GC/MS/MS and LC/MS/MS instrumentation.

Laboratory Director, Northeastern Toxicology Laboratory: Forensic Toxicologist.
1996-2006

Established and maintained laboratory certification and compliance with NYSHOH inspection and proficiency program. Developed, validated, and implemented urine drugs of abuse EMIT screening and confirmation methodology with GC/MS. Developed, validated and implemented Hair testing for Amphetamines, Opiates, Cocaine metabolites, Phencyclidine, and THCA and a highly-sensitive Ethylglucuronide method.

Chemistry Supervisor, Leonard Hospital and Seaton Health System, Troy, NY. 1993-1996.

Supervised chemistry and toxicology section of laboratory, including quality control and quality assurance and NYSDOH proficiency compliance.

Clinical Chemist, Dept. Clinical Pathology and Laboratory Medicine, Albany Medical Center, Albany, NY.

Responsible for supervision of stat lab, blood gas section, satellite and decentralized testing,

Clinical Chemistry Fellow, Dept. Clinical Pathology and Laboratory Medicine, Albany Medical Center, Albany, NY

Visiting Professor of Chemistry, Division of Natural Sciences, Bennington College, Bennington, Vermont, Taught undergraduate organic and general chemistry, with labs.

Assistant Professor, Clinical Chemistry, Department of Health Sciences, University of Wisconsin-Milwaukee.

Taught clinical chemistry and toxicology for medical technology students. Supervised Graduate Program.

Clinical Chemistry Resident, Clinical Pathology and Toxicology, School of Medicine, Oregon Health Sciences University.

Assistant Professor, Biochemistry Department, University of Massachusetts, Amherst, MA.

Research Associate, Biochemistry Department, University of Massachusetts, Amherst, MA.

Research Associate, Biochemistry Department, Eunice Kennedy Shriver Center for Mental Retardation and Harvard Medical School.

EDUCATION

B.A. Chemistry -Colorado College
Ph.D. Biochemistry/Biophysics -Oregon State University
Clinical Resident, Clinical Chemistry and Toxicology -Oregon Health Sciences University

COURSES TAUGHT

Undergraduate: Introductory Chemistry, Organic Chemistry,
General Biochemistry, Molecular Biochemistry, Clinical Chemistry, Clinical Instrumentation, Special Chemistry (Clinical), Biochemistry Seminar, History of Disease, History of Science, Human Environmental Disease.

Graduate: Biochemistry, Clinical Pathology Seminar,
Pathophysiology, Serum Proteins, Molecular Biology.

A SELECTION OF RECENT INVITED PRESENTATIONS AND SEMINARS:

"Environmental Sources of Human Disease". Environmental Sciences, Skidmore College, Spring 2003

"Chromatography of Natural Substances" Laboratory and Lecture, Science Institute for Girls. Skidmore College, July 1999 -2003.

"Pharmacogenetics and Medicine of the Future". Elder Hostel Lecture Series, Skidmore College, September 2001.

"Human Environmental Toxicology—an Introduction" Environmental Sciences, Skidmore College, December 2001

"Fad Diets in the US-—A Biochemist's View of What Works and Why". Sciences Division, Adirondack Community College, May 2001.

"Antioxidants and nutrition in diet and supplements in the elderly" Elder Hostel Lecture Series, Skidmore College, September 2000.

"Drug Interactions in a Geriatric Population" Elder Hostel Lecture Series, Skidmore College, September 1999.

HONORS

Nominated by Medical Technology students for "Golden Apple" Award for Outstanding Teacher in School of Allied Health Professions, University of Wisconsin, Milwaukee

Nominated by students for Distinguished University Professor, University of Massachusetts, Amherst.

Received merit award for teaching excellence, University of Massachusetts. Special teaching award by faculty.

NDEA Predoctoral Fellow, Oregon State University, 1966-1968.

Predoctoral Fellowship, Dept. Biochemistry and Biophysics, Oregon State University.

Awarded tuition scholarship, Colorado College.

GRANTS OBTAINED

1988-1990 "Vascular Damage and Angiotensin-converting Enzyme" NIH AREA Award, National Heart, Lung and Blood Institute, $72,000.

1987-1988 "Serum Forms of Angiotensin-converting Enzyme in Diagnosis and Disease" Graduate Council Award, University of Wisconsin- Milwaukee $9600.

1982-1983 "Metabolism of Angiotensin-converting Enzyme in Endothelial Cells"
NIH Biomedical Research Grant.

1981-82 "Purification of Angiotensin-converting Enzyme from Cultured Endothelial Cells" NIH Biomedical Research grant.

REFERENCES

Upon Request

PUBLICATIONS

LW Hayes et al., Ethylglucuronide in Urine by LC-MS/MS with Human Excretion Profiles Following Dermal and Oral Ethanol Use, Society of Forensic Toxicology Abstracts, 2007, p. S25

Rosano T, Swift T and Hayes L. Advances in catecholamine and metabolite measurement for the diagnosis of pheochromocytoma, a review. Clinical Chemistry, 37:1854-67, 1991

Rosano T, Hayes L, Dybas M, Nazeer T, Ross J. Evaluation of an immunoradiometric assay for cathepsin D concentration in breast and endometrial tumors. (Abstract) Clinical Chemistry, 37:1055, 1991

Otvos J, Hayes L, Jeyarajah E, Freedman D, Janjan N. Relationship between the proton nuclear magnetic resonance properties of plasma lipoproteins and cancer. Clinical Chemistry, 37: 369-376, 1991.

Hayes L, Krasseldt W, Mueggler P, Concentrations of codeine and morphine in serum and urine after ingestion of poppy seeds. Clinical Chemistry, 33:806, 1987.

Hayes L, Swanson JR, Elevated ammonia results due to bacterial contamination of aca tubing. Clinical Chemistry, 30:1882, 1984.

Hayes L, Rapid partial purification of angiotensin-converting enzyme from human plasma-preliminary report. Clinical Chemistry, 30:1061, 1984.

Ching SF, Hayes L, Slakey LL, Angiotensin-converting enzyme in cultured endothelial cells. Synthesis, degradation and transfer to culture medium. Atherosclerosis 3:581-588, 1983.

Ching SF, Hayes L, Slakey LL, Angiotensin converting enzyme in cultured endothelial cells and growth medium. Biochem Biophys Acta 657:222-231, 1981.

Hayes L, Dickinson ES, Stevens AL, Slakey LL, A comparison of enzyme activities in cultured endothelial and smooth muscle cells from swine aorta. Proc Natl Acad Sci 76:2532-2535, 1979.

Hayes L, Goguen CA, Slakey LL, Angiotensin converting enzyme activity accumulation in medium from cultured endothelial cells. Biochem Biophys Res Comm 82:1147-1153, 1978.

Jungalwala FB, Hayes L, McCluer RH, Determination of less than a nanomol of cerebrosides by high performance liquid chromatography with gradient elution analysis. J Lipid Res 18:282-292, 1977.

Hayes L, Jungalwala FB, Synthesis and turnover of cerebrosides and phosphatidyl serine of myelin and microsomes in adult and developing rat brain. Biochem J 160:195-204, 1976.

Hayes L, Larrabee R, Relative turnover rates of proteins and peptides of rat liver fatty acid synthetase. Biochem Biophys Res Comm 45:955-963, 1971.

Hayes L, Tinsley IJ, Lowry RR, Utilization of fatty acid by developing steelhead sac fry Salmo gairdneri. Comp Biochem Physiol 458:695-707.

Hayes L, Lowry RR, Tinsley IJ, Cholesterol interference in analysis of fatty acid methyl esters. Lipids 6:65-66, 1971.