# **Forensic Services**

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FORMAL EDUCATION:

1971: University of Washington; Bachelor Degree in Chemistry; Seattle, WA

## PROFESSIONAL EXPERIENCE:

1971-1975: Research Chemist for:

WSU in Horticultural Research Pennwalt in Pesticide Research

University of Washington in Heart Research

1975-1985: Forensic Scientist for the Washington State Patrol Crime Laboratory

1986-1987: Forensic Scientist at Quantum Analytical Laboratory 1987-Present: Owner and Forensic Scientist at Forensic Services

#### PRACTICAL EXPERIENCE:

- Trace evidence examination and comparison including human and animal hairs, fibers, paint, plastics, glass, soil and miscellaneous associative evidence
- Imprint evidence including shoeprints, tire prints, fabric impressions, and vehicle gauges
- Bloodstain pattern interpretation
- Evidence examination for body fluids
- Lamp filament examination for "on" or "off" at impact
- Analysis of controlled substances
- DWI case evaluation and defense
- Crime scene investigation and reconstruction
- Crime scene photography
- Determination of trajectory
- Evidence photography in the laboratory
- Accident investigation and reconstruction
- Quantitation of alcohol in whole blood
- Quantitation of alcohol in other liquids (i.e. drinks)
- More than 300 testimonies in municipal, district, superior, and federal courts in Washington, Idaho, and Montana.

#### PROFESSIONAL ASSOCIATIONS:

Northwest Association of Forensic Scientists (NWAFS)– since 1976 American Academy of Forensic Sciences (AAFS) – since 1978 Washington Association of Technical Accident Investigators (WATAI)– since 1983 International Association of Bloodstain Pattern Analysts (IABPS)– since 1992

Civil • Criminal • Laboratory Analysis • Accident Investigation • Evaluation • Consultation • Testimony

#### INSTRUCTION AND PROFESSIONAL PAPERS GIVEN FOR:

**Drug Enforcement Administration** 

Numerous police agencies in Washington State

Fellow forensic scientists at the Washington State Patrol Crime Lab

Washington State Criminal Justice Training Commission

Northwest Association of Forensic Scientists

Idaho Law Foundation - CLE

The Washington Defender Association - CLE

The Federal Public Defender – CLE

**United States Customs officers** 

The Seattle King County Bar Bulletin

The Washington Criminal Defense Magazine

Shoreline Community College

Washington Foundation for Criminal Justice - CLE

**Puget Sound Investigators Association** 

Selected groups of attorneys

Various public schools

The Seattle Adjuster

University of Washington School of Law - CLE

Pacific Northwest Association of Investigators

Associated Council for the Accused – CLE

King County Public Defender Association

### TOPICS INCLUDE:

Evidence recognition and collection

Leaf marijuana identification

Examination of vehicle lamps

Examination of quartz halogen lamps

Trace evidence examination

Basic narcotics investigation

Advanced crime scene investigation

Use of the independent crime laboratory

How to use an expert witness

Cross examining of an expert witness

Determination of "who was driving?"

DWI defense and possible Datamaster errors

Proving who was driving from trace evidence and injuries

Blood stain pattern interpretation

#### PROFESSIONAL LICENSES:

Licensed by the State of Washington since 1987

Licensed by the Federal Drug Enforcement Administration for analytical testing of controlled substances since 1988; Controlled Substance Registration number RMO132011

Licensed by the State of Washington Health Professions Quality Assurance Division since 1997

## SPECIALIZED TRAINING RECEIVED:

Crime Scene Investigation; Highline Community College; Midway, WA; 1974

Crime Scene Detection; Highline Community College; Midway, WA; 1975

Introduction to Criminalistics; FBI Academy; Quantico, VA; 1976

Gas Chromatography Training; Gulf South Research Institute and Perkin Elmer; Portland OR; 1976

Body Fluid Identification; NWAFS; Missoula, MT; 1976

Applied Polarized Light Microscopy; McCrone Institute; Chicago, IL; 1977

Instrumental Analysis of Paints and Explosives; FBI Academy; Quantico, VA; 1977

Vehicle Lamp Examination Workshop; The Traffic Institute; Northwestern University; Evanston, IL; 1978

Advanced Crime Scene Investigation; Washington State Criminal Justice Training Commission; Highline Community College; Midway, WA; 1978

Forensic Microscopy; McCrone Institute; Chicago, IL; 1978

Introduction to Hairs and Fibers; FBI Academy; Quantico, VA; 1979

Forensic Microscopy of Soils; McCrone Institute; Chicago, IL; 1979

Crime Scene Investigation; FBI Academy; Quantico, VA; 1980

Clandestine Drug Laboratory Workshop; NWAFS; Eugene, OR; 1982

Crime Laboratory Forensic Photography; FBI Academy; Quantico, VA; 1982

Crime Scene Theory and Reconstruction; California Dept. of Justice; Modesto, CA; 1983

Firearms Examination Workshop; NWAFS; Bend, OR; 1986

Controlled Drinking Experiments; Quantum Analytical Laboratory; Seattle, WA; 1986

At Scene Traffic Accident Investigation; Institute of Police Technology and Management; University of

North Florida; Correspondence Course; 1986

Blood Alcohol Quantitation; Quantum Analytical Laboratory; Seattle, WA; 1986

Highway Lighting Systems; WATAI; Bellevue, WA; 1987

Collision Analysis and Traffic Accident Reconstruction; Society of Accident Reconstructionists; Miami, FL; 1987

#### SPECIALIZED TRAINNING CONTINUED:

Blood Spatter Analysis; NWAFS; Portland, OR; 1988

Blood Alcohol Absorption and Elimination; NWAFS; Portland, OR; 1988

Tire Footprint Identification by Peter McDonald; NWAFS; Coeur D'Alene, ID; 1991

Advanced Bloodstain Evidence Workshop; J.L. Bunker and Associates; Spokane, WA; 1992

Advanced Seminar on Bloodstain Pattern Analysis and Forensic Investigation; IABPA; Colorado Springs, CO; 1992

Recovery of Buried Bodies and Scattered Surface Skeletons; NWAFS; Boise, ID; 1993

Advanced Seminar on Bloodstain Pattern Analysis and Forensic Investigation; IABPA; Los Angeles, CA 1993

Recovery and Identification of Trace Evidence from Bullets; NWAFS; Anchorage, AK; 1995

Fiber Cross-Sections: How to Make and Use Them; NWAFS; Anchorage, AK 1995

Identification and Examination of Bloodstains; Everett Community College; Everett, WA; 1995

Advanced Seminar on Bloodstain Pattern Analysis and Forensic Investigation; IABPA joint conference with The Association for Crime Scene Reconstruction; Seattle, WA; 1997

Side Impact Collision Training and Demonstration; WATAI; Bremerton, WA; 1998

Microscopic Examination of Sexual Assault evidence; International Association of Forensic Scientists; Los Angeles, CA; 1999

Vehicle Lamp Damage in Controlled Collisions (crash demonstrations); WATAI; Seattle, WA; 2002

Domestic Violence Photography; NWAFS; Portland, OR; 2003

Semen Analysis; Location of Deposits and Presumptive testing; Emerald City Forensics; Seattle, WA; 2003

Bus braking and Turning at High Speeds (training and demonstrations at Seattle Metro); WATAI; Seattle, WA: 2004

High Throughput Genetic Testing in the Wake of a Mass Disaster; NWFS; Seattle, WA; 2005

The Green River: Forensic Evidence and the Prosecution of Gary Ridgeway; AAFS; Seattle, WA; 2006