

**SUBSPECIALTY AREAS OF INTEREST
UNIVERSITY OF WASHINGTON
PATHOLOGY RESIDENCY & FELLOWSHIP PROGRAMS
INCLUDING UWMC SCH, HMC, VA, SWEDISH, FHCRC, SCCA,
DEPT. OF PATHOLOGY & DEPT. OF LABORATORY MEDICINE**

<p>Autopsy/Forensic Gail Deutsch, MD Gerald Finkel, MD Corinne Fligner, MD Aldo Fusaro, DO Joel Haas, MD Richard Harruff, MD PhD Raj Kapur, MD PhD Dennis Reichenbach, MD Erin Rudzinski, MD Joseph Siebert, PhD David Thorning, MD Timothy Williams, MD</p>	<p>Basic Science Charles Alpers, MD Geoffrey Baird, MD PhD Peter Byers, MD Jean S. Campbell, PhD Christine Disteche, PhD David Dong, MD PhD Keith Jerome, MD PhD Matt Kaeberlein, PhD Jolanta Kowalewska, MD Michael Laflamme, MD PhD Keith Loeb, MD PhD Lawrence A. Loeb, MD PhD William Mahoney, PhD James Mullins, PhD Charles Murry, MD PhD Roberto Nicosia, MD PhD Junko Oshima, PhD Stephen Polyak, PhD Peter Rabinovitch, MD PhD Michael Rosenfeld, PhD Kelly Smith, MD PhD Karen Stephens, PhD Jonathan Tait, MD PhD Carole Wilson, PhD Jing Zhang, MD PhD</p>	<p>Bone & Soft Tissue Peter Byers, MD Benjamin Hoch, MD Matthew Horton, MD Bruce Kulander, MD Adam Kuten, MD A. Sampath Narayanan, PhD Rostislav Ranguelov, MD Paul E. Swanson, MD Ronald Tickman, MD Nan Ping Wang, MD PhD Dana Wolinsky, MD</p>	<p>Breast Kim Allison, MD Geoffrey Baird, MD PhD Suzanne Dintzis, MD PhD Rochelle Garcia, MD Christina Isacson, MD C. Diana Jordan, MD Bruce Kulander, MD Deidre McDonagh, MD Ellen Pizer, MD Peggy Porter, MD Rostislav Ranguelov, MD Sean Thornton, MD Ronald Tickman, MD Nan Ping Wang, MD PhD Dana Wolinsky, MD</p>
<p>Cardiovascular Charles Alpers, MD Karin Bornfeldt, PhD Dan Bowen-Pope, MD PhD Peter Byers, MD Corinne Fligner, MD Andrew Hoofnagle, MD PhD Michael Laflamme, MD PhD William Mahoney, PhD Charles Murry, MD PhD Roberto Nicosia, MD PhD Kathleen Patterson, MD Dennis Reichenbach, MD Michael Reidy, PhD Michael Rosenfeld, PhD Stephen Schwartz, MD PhD Joseph Siebert, PhD Kelly Smith, MD PhD Carole Wilson, PhD</p>	<p>Clinical Chemistry Michael Astion, MD PhD Geoffrey Baird, MD PhD Daniel Bankson, PhD MBA Wayne Chandler MD David Chou, MD David Corwin, MD Andrew Hoofnagle, MD PhD Rhona Jack, PhD Petrie Rainey, MD PhD Joe Rutledge, MD Harvey Schiller, MD Jonathan Tait, MD PhD Mark Wener, MD Min Xu, MD PhD</p>	<p>Cytogenetics Christine Disteche, PhD Min Fang, MD PhD Thomas Norwood, MD Kent Opheim, PhD Kelly Smith, MD PhD Karen Tsuchiya, MD David Wu, MD PhD</p>	<p>Cytopathology Rochelle Garcia, MD Verena Grieco, MD Christina Isacson, MD C. Diana Jordan, MD Nancy Kiviat, MD Richard Knierim, MD Bruce Kulander, MD Adam Kuten, MD Deirdre McDonagh, MD Annette Peck-Sabath, MD Nuria Perez-Reyes, MD David Thorning, MD Sean Thornton, MD Ronald Tickman, MD Melissa Upton, MD</p>
<p>Dermatopathology Zsolt Argyenyi, MD K. Mireille Chae, MD Susan Detweiler, MD Heike Deubner, MD Evan George, MD Charles Hunter, MD Richard Knierim, MD George E. Sale, MD Paul E. Swanson, MD</p>	<p>Developmental Biology Dan Bowen-Pope, MD PhD Christine Disteche, PhD Gail Deutsch, MD Robert Hevner, MD PhD Raj Kapur, MD PhD Michael Laflamme, MD PhD William Mahoney, PhD Charles Murry, MD PhD Roberto Nicosia, MD PhD Joe Rutledge, MD Stephen Schwartz, MD PhD Joseph Siebert, PhD Carole Wilson, PhD</p>	<p>Electron Microscopy & Image Analysis Charles Alpers, MD Donald Born, MD PhD Joel Haas, MD Jolanta Kowalewska, MD Roberto Nicosia, MD PhD Kathleen Patterson, MD Joe Rutledge, MD Rodney Schmidt, MD PhD Paul E. Swanson, MD David Thorning, MD Larry True, MD</p>	<p>Endocrine Daniel Bankson, PhD MBA Andrew Hoofnagle, MD PhD C. Diana Jordan, MD Bruce Kulander, MD Ronald Tickman, MD</p>

Fetal Gail Deutsch, MD Corinne Fligner, MD Joel Haas, MD Robert Hevner, MD PhD Raj Kapur, MD PhD Joseph Siebert, PhD	Fine Needle Aspiration Verena Grieco, MD C. Diana Jordan, MD Richard Knierim, MD Bruce Kulander, MD Deirdre McDonagh, MD Annette Peck-Sabath, MD Nuria Perez-Reyes, MD Sean Thornton, MD Ronald Tickman, MD	Flow Cytometry Sindhu Cherian, MD Linda Cook, PhD David Corwin, MD Stephen DeRosa, MD David Dong, MD PhD Laura Finn, MD Jonathan Fromm, MD PhD Harvey Greisman, MD PhD Carolyn Kitchell, MD	Flow Cytometry Steve Kussick, MD PhD Keith Loeb, MD PhD Peter Rabinovitch, MD PhD Daniel Sabath, MD PhD Brent Wood, MD PhD David Wu, MD PhD Min Xu, MD PhD
Gastrointestinal Suzanne Dintzis, MD PhD Joel Haas, MD Richard Knierim, MD Lawrence A. Loeb, MD PhD Peter Rabinovitch, MD PhD Rostislav Ranguelov, MD Joseph Rank, MD George E. Sale, MD Howard Shulman, MD Paul E. Swanson, MD Kyi Tham, MD Melissa Upton, MD Matthew Yeh, MD PhD	Genitourinary Joel Haas, MD Christina Isacson, MD Bruce Kulander, MD Deirdre McDonagh, MD Ellen Pizer, MD Rostislav Ranguelov, MD Steven Rostad, MD Ronald Tickman, MD Lawrence True, MD Melissa Upton, MD Funda Vakar-Lopez, MD Jeffrey Virgin, MD PhD Nan Ping Wang, MD PhD Dana Wolinsky, MD	Gynecology Kim Allison, MD Rochelle Garcia, MD Christina Isacson, MD C. Diana Jordan, MD Nancy Kiviat, MD Bruce Kulander, MD Deirdre McDonagh, MD Nuria Perez-Reyes, MD Ellen Pizer, MD Ronald Tickman, MD Nan Ping Wang, MD PhD	Head and Neck/Oral Benjamin Hoch, MD Richard Knierim, MD Bruce Kulander, MD Dolphine Oda, DDS Rostislav Ranguelov, MD Ronald Tickman, MD Melissa Upton, MD
Hepatic Jean S. Campbell, PhD Heike Deubner, MD Joel Haas, MD Richard Knierim, MD Rostislav Ranguelov, MD Joseph Rank, MD Howard Shulman, MD Paul E. Swanson, MD Kyi Tham, MD Melissa Upton, MD Matthew Yeh, MD PhD	Hematopathology Wayne Chandler, MD Sindhu Cherian, MD David Corwin, MD David Dong, MD Kerstin Edlefsen, MD Jonathan Fromm, MD PhD Harvey Greisman, MD PhD Robert Hackman, MD Charles Hunter, MD Carolyn Kitchell, MD Richard Knierim, MD Steve Kussick, MD PhD Keith Loeb, MD PhD David Myerson, MD PhD Joe Rutledge, MD Daniel Sabath, MD PhD George E. Sale, MD Howard Shulman, MD Brent Wood, MD PhD David Wu, MD PhD Min Xu, MD PhD	Immunohistochemistry Charles Alpers, MD Geoffrey Baird, MD PhD Donald Born, MD PhD David Dong, MD PhD Laura Finn, MD Jonathan Fromm, MD PhD Evan George, MD Robert Hackman, MD David Myerson, MD PhD Roberto Nicosia, MD PhD Peggy Porter, MD Rostislav Ranguelov, MD Rodney Schmidt, MD PhD Paul E. Swanson, MD Ronald Tickman, MD Lawrence True, MD Nan Ping Wang, MD PhD Carole Wilson, PhD Brent Wood, MD PhD	Immunology Charles Alpers, MD Michael Astion, MD PhD Daniel Bankson, PhD MBA Linda Cook, PhD Stephen DeRosa, MD David Dong, MD Terry Gernsheimer, MD Andrew Hoofnagle, MD PhD Donald Howard, MD PhD Keith Jerome, MD PhD Jolanta Kowalewska, MD Kelly Smith, MD PhD Mark Wener, MD Carole Wilson, PhD Tuofu Zhu, MD PhD
Informatics Michael Astion, MD PhD David Chou MD James Fine, MD Noah Hoffman, MD PhD Andrew Hoofnagle, MD PhD James Mullins, PhD Joe Rutledge, MD Rodney Schmidt, MD PhD	Lab Management Michael Astion, MD PhD Geoffrey Baird, MD PhD Daniel Bankson, PhD MBA Wayne Chandler MD David Chou MD David Corwin, MD Robert Hackman, MD Noah Hoffman, MD PhD Andrew Hoofnagle, MD PhD Donald Howard, MD PhD Carolyn Kitchell, MD Petrie Rainey, MD PhD Joe Rutledge, MD Melissa Upton, MD Min Xu, MD PhD	Mass Spectrometry Geoffrey Baird, MD PhD Andrew Hoofnagle, MD PhD Rhona Jack, PhD Petrie Rainey, MD PhD	Microbiology Brad Cookson, MD PhD Ferric Fang, MD Robert Hackman, MD Noah Hoffman, MD PhD Ajit Limaye, MD James Mullins, PhD Xuan Qin, PhD Kelly Smith, MD PhD

Molecular Biology Linda Cook, PhD Min Fang, MD PhD Qinghua Feng, PhD Noah Hoffman, MD PhD Keith Jerome, MD PhD Matt Kaerberlein, PhD Keith Loeb, MD PhD Lawrence A. Loeb, MD PhD William Mahoney, PhD Karen Stephens, PhD Ellen Pizer, MD James Mullins, PhD Roberto Nicosia, MD PhD Stephen Polyak, PhD Lawrence True, MD Carole Wilson, PhD	Molecular Diagnostics Donald Born, MD PhD Geoffrey Baird, MD PhD Peter Byers, MD Linda Cook, PhD Brad Cookson, MD PhD Suzanne Dintzis, MD PhD Christine Disteché, PhD Min Fang, MD PhD Qinghua Feng, PhD Lisa Frenkel, MD Harvey Greisman, MD PhD Robert Hevner, MD PhD Noah Hoffman, MD PhD Keith Jerome, MD PhD Raj Kapur, MD PhD Lawrence A. Loeb, MD PhD Long Fu Xi, MD PhD	Molecular Diagnostics David Myerson, MD PhD Kent Opheim, PhD Peggy Porter, MD Xuan Qin, PhD Petrie Rainey, MD PhD Daniel Sabath, MD PhD Rodney Schmidt, MD PhD Karen Stephens, PhD Jonathan Tait, MD PhD Karen Tsuchiya, MD Lawrence True, MD Nan Ping Wang, MD PhD Brent Wood, MD PhD David Wu, MD PhD Jing Zhang, MD PhD	Molecular Genetics Peter Byers, MD PhD Christine Disteché, PhD Min Fang, MD PhD Harvey Greisman, MD PhD Robert Hevner, MD PhD Matt Kaerberlein, PhD Lawrence A. Loeb, MD PhD James Mullins, PhD Daniel Sabath, MD PhD Karen Stephens, PhD Jonathan Tait, MD PhD Karen Tsuchiya, MD Brent Wood, MD PhD David Wu, MD PhD Tuofu Zhu, MD PhD
Neuropathology Donald Born, MD PhD Robert Hevner, MD PhD C. Dirk Keene, MD PhD Thomas Montine, MD PhD Steven Rostad, MD Joshua Sonnen, MD Jing Zhang, MD PhD	Ocular/Ophthalmic Donald Born, MD PhD Richard Knierim, MD Bruce Kulander, MD Steven Rostad, MD Joshua Sonnen, MD Jing Zhang, MD PhD	Pancreas Joseph Rank, MD Paul E. Swanson, MD Melissa Upton, MD Matthew Yeh, MD PhD	Parasitology Petrie Rainey, MD PhD Gottfried Schmer, MD Kyi Tham, MD
Pediatric Gail Deutsch, MD Laura Finn, MD Lisa Frenkel, MD Joel Haas, MD Raj Kapur, MD PhD Kent Opheim, PhD Kathleen Patterson, MD Xuan Qin, PhD Erin Rudzinski, MD Joe Rutledge, MD Joseph Siebert, PhD Karen Tsuchiya, MD Min Xu, MD PhD	Pharmacology Geoffrey Baird, MD PhD Petrie Rainey, MD PhD	Placental Gail Deutsch, MD Corinne Fligner, MD Joel Haas, MD Raj Kapur, MD PhD Richard Knierim, MD Ellen Pizer, MD Melissa Upton, MD	Prostate Lawrence A. Loeb, MD PhD Larry True, MD Funda Vakar-Lopez, MD Jeffrey Virgin, MD PhD
Pulmonary Gail Deutsch, MD Robert Hackman, MD Matthew Horton, MD Charles Hunter, MD A. Sampath Narayanan, PhD Rodney Schmidt, MD PhD David Thorning, MD Ronald Tickman, MD	Renal Charles Alpers, MD Laura Finn, MD Jolanta Kowalewska, MD Roberto Nicosia, MD PhD Kelly Smith, MD PhD	Statistics Amalia Magaret, PhD	Toxicology Geoffrey Baird, MD PhD Daniel Bankson, PhD MBA Corinne Fligner, MD Petrie Rainey, MD PhD Michael Rosenfeld, PhD Jing Zhang, MD PhD
Transfusion Medicine & Coagulation Wayne Chandler MD Meghan Delaney, DO David Dong, MD PhD Terry Gernsheimer, MD Carolyn Kitchell, MD Theresa Nester, MD Min Xu, MD PhD	Transplant Charles Alpers, MD David Dong, MD PhD Laura Finn, MD Robert Hackman, MD Matthew Horton, MD Donald Howard, MD PhD Charles Hunter, MD Jolanta Kowalewska, MD Michael Laflamme, MD PhD Charles Murry, MD PhD David Myerson, MD PhD Erin Rudzinski, MD George E. Sale, MD Kelly Smith, MD PhD Rodney Schmidt, MD PhD Howard Shulman, MD Paul E. Swanson, MD Ronald Tickman, MD Melissa Upton, MD Brent Wood, MD PhD Matthew Yeh, MD PhD	Virology Rhoda Ashley Morrow, PhD Linda Cook, PhD Robert Coombs, MD PhD Lawrence Corey, MD Lisa Frenkel, MD David Gretch, MD PhD Robert Hackman, MD Noah Hoffman, MD PhD Keith Jerome, MD PhD Amalia Magaret, PhD James Mullins, PhD David Myerson, MD PhD Stephen Polyak, PhD Kelly Smith, MD PhD Long Fu Xi, MD PhD Tuofu Zhu, MD PhD	

RESEARCH AREAS OF INTEREST

Accident/Injury Analysis and Prevention Richard Harruff, MD PhD	Ageing and Alzheimer's Disease Matt Kaerberlein, PhD; Lawrence A. Loeb, MD PhD; Thomas Norwood, MD; Junko Oshima, PhD; Peter Rabinovitch, MD PhD; Joshua Sonnen, MD; Mark Wener, MD; Norm Wolf, DVM PhD; Jing Zhang, MD PhD
Angiogenesis William Mahoney, PhD; Charles Murry, MD PhD; Robert Nicosia, MD PhD; Carole Wilson, PhD	Antimicrobial Drug Resistance Xuan Qin, PhD
Autoimmunity Linda Cook, PhD; Mark Wener, MD	Bone Marrow/Stem Cell Transplantation Robert Hackman, MD; Keith Loeb, MD PhD; Charles Murry, MD PhD; Morayma Reyes, MD PhD; George E. Sale, MD; Howard Shulman, MD; Carole Wilson, PhD
Bone Biology & Neoplasia Benjamin Hoch, MD	Breast Cancer Biomarkers And Progressions Kim Allison, MD; Geoffrey Baird, MD PhD; Suzanne Dintzis, MD PhD; Peggy Porter, MD
Breast Cancer/Sentinel Lymph Nodes Kim Allison, MD; Min Fang, MD PhD; Qinghua Feng, PhD; Nan Ping Wang, MD PhD	Cardiac Biology Michael Laflamme, MD PhD; Charles Murry, MD PhD; Carole Wilson, PhD
Cell Cycle Regulation Keith Loeb, MD PhD	Clinical Application of Flow Cytometry Jonathan Fromm, MD PhD; Brent Wood, MD PhD
Clinical Pharmacology and Toxicology Petrie Rainey, MD PhD	Competency Assessment Michael Astion, MD PhD
Congenital And Craniofacial Malformations Gain Deutsch, MD; Joel Haas, MD; Raj Kapur, MD PhD; Joseph Siebert, PhD	Connective Tissue/ Matrix Biology Peter Byers, MD; Michael Laflamme, MD PhD; Charles Murry, MD PhD; A. Sampath Narayanan, PhD; Carole Wilson, PhD
Developmental Pathology: Intestinal Dysmotility Raj Kapur, MD PhD	Diabetes Charles Alpers, MD; Andrew Hoofnagle, MD PhD; Joshua Sonnen, MD
DNA Repair Lawrence A. Loeb MD PHD; Ray Monnat, MD; Jeffrey Virgin, MD PhD	Domestic/Intimate Partner Violence Richard Harruff, MD PhD
Environmental Pathology Nelson Fausto, MD; Lawrence A. Loeb, MD PhD; Ray Monnat, MD; Jing Zhang MD PhD	Firearm Injuries Richard Harruff, MD PhD
Gene Therapy Charles Alpers, MD; Keith Jerome, MD PhD; Ray Monnat, MD; Charles Murry, MD PhD	Genetic Testing Peter Byers, MD; Christine Disteche, PhD; Min Fang, MD PhD; James Mullins, PhD; Karen Stephens, PhD; Karen Tsuchiya, MD; Tuofu Zhu, MD PhD
Genome Instability & Tumor Pathogenesis Suzanne Dintzis, MD PhD; Nelson Fausto, MD; Harvey Greisman, MD PhD; Keith Loeb, MD PhD; Lawrence A. Loeb, MD PhD; Ray Monnat, MD; Peter Rabinovitch, MD PhD; Lawrence True, MD; Melissa Upton, MD; Jeffrey Virgin, MD PhD	GI Cancer Research Project Suzanne Dintzis, MD PhD; Peter Rabinovitch, MD PhD; Melissa Upton, MD; Matthew Yeh, MD PhD
Gynecologic Neoplasms Kim Allison, MD; Rochelle Garcia, MD; Christina Isacson, MD; Ellen Pizer, MD; Long Fu Xi, MD PhD	HIV/AIDS Robert Coombs, MD PhD; Lawrence Corey, MD; Lisa Frenkel, MD; Keith Jerome, MD PhD; Nancy Kiviat, MD; James Mullins, PhD; Tuofu Zhu, MD PhD
Immunohistochemistry: Diagnostic Application in Dermatopathology Evan George, MD	IHC Evaluation of New Abs/Ags Suzanne Dintzis, MD PhD; Ray Monnat, MD; Paul E. Swanson, MD; Nan Ping Wang, MD PhD
Immunology and Inflammation Charles Alpers, MD; David Dong, MD PhD; Andrew Hoofnagle, MD PhD; Chihiro Morishima, MD; A. Sampath Narayanan, PhD; Kelly Smith, MD PhD; Carole Wilson, PhD	Infections in Immunocompromised Patients Lawrence Corey, MD; Robert C. Hackman, MD
Informatics Applications in Anatomic Pathology Rodney Schmidt, MD PhD	Liver Regeneration & Hepatocarcinogenesis Jean S. Campbell, PhD; Nelson Fausto, MD; Joel Haas, MD; Melissa Upton, MD; Matthew Yeh, MD PhD
Lung Cancer Qinghua Feng, PhD; Matthew Horton, MD; Rodney Schmidt, MD PhD	Lymphoma Pathogenesis Jonathan Fromm, MD PhD; David Wu, MD PhD
Melanocytic Neoplasms: Diagnosis and Biologic Behavior Evan George, MD	Microbial Pathogenesis Brad Cookson, MD PhD; David Dong, MD; Robert Hackman, MD; Keith Jerome, MD PhD; Kelly Smith, MD PhD
Models of Renal Injury Charles Alpers, MD; Jolanta Kowalewska, MD	Molecular Cytogenetic Technologies Suzanne Dintzis, MD PhD; Christine Disteche, PhD; Min Fang, MD PhD; Harvey Greisman, MD PhD; Kent E. Opheim, PhD; Karen Tsuchiya, MD; David Wu, MD PhD

Morphologic Sequela of Sepsis Paul E. Swanson, MD	Murine Models of Human Disease Suzanne Dintzis, MD PhD; Robert Hackman, MD; C. Diana Jordan, MD; Raj Kapur, MD PhD; Carole Wilson, PhD
Neonatal & Pediatric Lung Disease: Gail Deutsch, MD	Neurodegeneration including Parkinson's Disease Matt Kaerberlein, PhD; Raj Kapur, MD PhD; Jing Zhang, MD PhD
Neurofibromatosis Karen Stephens, PhD	Normal & Abnormal Growth And Development Gail Deutsch, MD; Joel Haas, MD; Raj Kapur, MD PhD; Joseph Siebert, PhD
Nutrition Daniel D. Bankson, PhD MBA; Andrew Hoofnagle, MD PhD; Michael Rosenfeld, PhD; Carole Wilson, PhD	Patient Safety Michael Astion, MD PhD
Pharmacology - Leishmaniasis and HIV Pete Rainey, MD PhD	Platelet Immunology and Transfusion Terry Gernsheimer, MD
Point-of-Care Testing in Global Health Karen Stephens, PhD	Prostate Cancer & Gene Discovery Geoffrey Baird, MD PhD; Min Fang, MD PhD; Lawrence True, MD
Prostate Cancer Translational Research Funda Vakar-Lopez, MD	Sex Chromosome Regulation Christine Disteche, PhD
Stem Cells & Regenerative Biology Jean S. Campbell, PhD; Robert Hackman, MD; Michael Laflamme, MD PhD; William Mahoney, PhD; Ray Monnat, MD; Charles Murry, MD PhD; David Myerson, MD PhD; Roberto Nicosia, MD PhD; Morayma Reyes, MD PhD; Stephen Schwartz, MD PhD; Lawrence True, MD; Norm Wolf, DVM PhD	Strangulation Richard Harruff, MD PhD
Vascular Biology Charles Alpers, MD; Karin Bornfeldt, PhD; Daniel Bowen-Pope, PhD; Peter Byers, MD; Michael Laflamme, MD PhD; William Mahoney, PhD; Charles Murry, MD PhD; Roberto Nicosia, MD PhD; Michael Reidy, PhD; Morayma Reyes, MD PhD; Michael Rosenfeld, PhD; Stephen Schwartz, MD PhD; Joshua Sonnen, MD; Carole Wilson, PhD	Viral Hepatitis Linda Cook, PhD; Chihiro Morishima, MD; Stephen Polyak, PhD; Matthew Yeh, MD PhD