

Clinical Medical and Molecular Genetics

Overview

The Department of Medical and Molecular Genetics is comprised of physician geneticists, genetic counselors, nurse case managers, dietitians, medical assistants, social workers, and genetic counseling assistants who work collaboratively to provide comprehensive evaluations and care plans across the lifespan of our patients. Our providers also collaborate with other specialists as part of multidisciplinary care teams within the academic health center as well as suburban hospitals. Our outpatient clinics extend across Riley, IU North, Simon Cancer Center, and University Hospital as well outreach clinics in Bloomington, Madison and Terre Haute.

Clinical areas include:

- Cardiology
- Neurology
- Oncology
- Medical Genetics
- Metabolic Genetics
- Specialty Clinics

Our practice provides 24/7 care with a robust inpatient service as well with physician geneticists, genetic counselors, and dietitians seeing patients at Riley, University, Methodist and Eskenazi hospitals.

In addition to clinical services, the IU Genetic Testing Laboratories serve as a national clinical reference laboratory and worldwide leader in innovative laboratory research and development. These facilities offer an extensive menu of highly complex and unique medical tests in the specialties of cytogenetics, biochemical genetics, pharmacogenomics, and molecular genetics.

Our clinical genetics staff and researchers work together to take a bench to bedside approach to care for some of our most medically complex pediatric and adult patients. Established in 2020, the Undiagnosed Rare Disease Clinic (URDC) offers new hope to identifying an underlying genetic etiology for patients with a suspicion of a genetic diagnosis where clinical testing to date has been unable to identify a cause.



Dr. Stephanie Ware
Vice Chair of Clinical Affairs



Dr. Brett Graham
Associate Director of Clinical Genetics



Sandra Truett
Associate Vice Chair of Clinical Operations



Sandra Prucka, MS, LCGC
Director of Genetic Counseling for Clinical Services

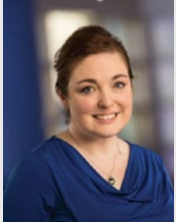
<https://medicine.iu.edu/genetics/clinical-care>

<https://iuhealth.org/find-medical-services/medical-genetics>

GENETICISTS



Dr. Stephanie Ware



Dr. Elle Geddes

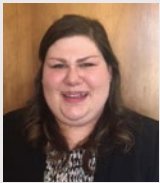
GENETIC COUNSELORS



Sara Fitzgerald-Butt, MS, LCGC



Ben Helm, MS, LCGC



Kelly Schmit, MS, LCGC



Katie Spoonamore, MS, LCGC

CARDIOLOGY

Pediatric

Drs. Stephanie Ware and Elle Geddes with genetic counselors Sara Fitzgerald-Butt, Ben Helm and Kelly Schmit.

Within the Department of Medical and Molecular Genetics we have weekly cardiovascular genetic clinics to evaluate patients with congenital heart disease (CHD) that is either isolated or part of a larger picture (syndromic). These clinics are staffed by a physician geneticist and genetic counselor focused on investigating a potential genetic etiology for CHD. Patients are provided a comprehensive evaluation which often includes facilitating genetic testing, results interpretation and communication, facilitating cascade testing for at-risk family members and long-term management coordination.

In addition, we participate in several multiple-disciplinary clinics for the evaluation and care of families affected by, or being evaluated for:

- Cardiomyopathies and sudden cardiac death
- Aortopathies
- Channelopathies
- Arrhythmias
- Connective tissue disorders
- Pulmonary arterial hypertension
- Familial hyperlipidemia

Some of our multidisciplinary clinics are staffed by a genetic counselor in combination with a cardiologist and geneticist, with only a cardiologist, or a genetic counselor independently depending on the care needs of the patient, previous evaluations and testing needs for family members. Patients with these conditions who have established cardiac care outside our health system are often integrated into our cardiovascular genetics clinics for a comprehensive evaluation.

Adult

Genetic counselor Katie Spoonamore

Within the Division of Cardiology, genetic counselor Katie Spoonamore, works in conjunction with a team of adult cardiologists to support multidisciplinary clinics, most regularly:

- **Advanced Lipid Clinic** which serves patients with familial hypercholesterolemia and other, more rare, inherited disorders of hypercholesterolemia and hypertriglyceridemia

In addition to multidisciplinary care, the genetic counselor sees patients throughout the week in outpatient clinics at IUH Methodist and Eskenazi Health, both in-person and via telemedicine. Common conditions for which genetic counseling and test coordination are provided include:

- Hypertrophic cardiomyopathy
- Idiopathic heart failure/dilated cardiomyopathy
- Other nonsyndromic cardiomyopathies
- Cardiac amyloidosis
- Channelopathies
- Arrhythmias, cardiac conduction disease
- Sudden cardiac death
- Pulmonary arterial hypertension
- Aortopathies
- Family history of hereditary cardiovascular disease

Physicians

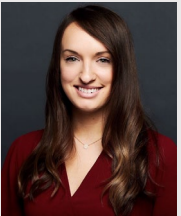


Dr. Larry Walsh



Dr. Celanie Christensen

GENETIC COUNSELORS



Victoria Klee, MS, LCGC



Katelyn Payne, RN, LCGC



Kerry White, MS, LCGC

NEUROLOGY

Genetic counselors from the Department of Medical and Molecular Genetics provide services both independently and as part of a multidisciplinary care team with a focus on:

- Obtaining medical, birth, and family histories
- Providing genetic risk assessment for patients and their family members
- Coordinating genetic testing or familial testing
- Disclosing the results of genetic testing and providing disease-specific genetic education and counseling

Pediatric

Drs. Larry Walsh and Celanie Christensen and genetic counselor Victoria Klee

The Neurogenetics Clinic at Riley Hospital for Children takes place once a week focusing on pediatric patients who are referred for evaluation of a possible underlying neurogenetic condition. A neurologist specializing in neurogenetics and genetic counselor collaborate to obtain detail medical and family histories, perform a detailed neurology and genetic exam, pre and post-test genetic counseling and coordination of follow-up and care management.

Common referrals include brain malformations, seizures, hypotonia, muscular weakness, dystonia and cognitive delays. Some of the more common conditions evaluated for in this clinic include:

- Inherited seizure disorders
- Septo-optic dysplasia
- Mitochondrial disorders
- Muscular dystrophy
- Family history of a neurogenetic disorder

In addition to the Neurogenetics clinic, the larger pediatric neurology physician practice at Riley participates in specialty clinics which may include conditions with an underlying genetic etiology. These specialty clinics include:

- Epilepsy
- Duchenne/Becker muscular dystrophy
- Neurofibromatosis
- Neuromuscular disorders
- Neurovascular conditions
- Spinal muscular atrophy

Genetic test recommendations may be necessary for the comprehensive evaluation of patients seen in these specialty clinics. Our pediatric neurogenetic counselor meets with these patients, as well as those referred to her from throughout the state, to provide comprehensive pre/post-test neurogenetic counseling, risk assessment and genetic education.

The Developmental Pediatrics Clinic

Dr. Celanie Christensen and genetic counselor Kerry White

Genetic counselor Kerry White is embedded in Developmental Pediatrics at the Riley Hospital for Children's Pediatric Primary Care offices. As part of a comprehensive care team Kerry works to obtain detailed medical/birth and family histories, provide genetic risk assessment for patients and their family members, coordinate genetic testing, disclose the results of genetic testing, and provide disease-specific genetic education and counseling.

Adult

Genetic counselor Katelyn Payne

At the IU Health Neuroscience Center, the genetic counselor Katelyn Payne works in conjunction with a team of adult neurologists to support several multidisciplinary clinics which include:

- **Muscular Dystrophy Association (MDA)** clinic which serves patients with muscular dystrophies, myopathies, mitochondrial disease, hereditary neuropathies, periodic paralysis and myasthenia (congenital and acquired)
- **Amyotrophic lateral sclerosis (ALS)** clinic which serves patients with ALS and other ALS mimics which include primary lateral sclerosis

In addition to multidisciplinary care, the genetic counselor sees patients throughout the week in an outpatient setting both in-person and via telemedicine. Common conditions for which genetic counseling and test coordination are provided include:

- Parkinson disease
- Huntington disease
- Generalized dystonias and other movement disorders
- Alzheimer disease and dementia
- Neuro-ophthalmologic disorders
- Neurovascular disorders
- Hereditary epilepsies
- Hemiplegic migraine
- Neurofibromatosis related disorders

There are a number of ongoing research studies at the IU Health Neuroscience Center for which genetic testing and counseling can often be an integral component. Genetic counseling support is provided to meet the needs of research participants at the center which have included:

- Rostock International Parkinson Disease Study (ROPAD)
- Longitudinal Early-onset Alzheimer Disease Study (LEADS)
- Dominantly Inherited Alzheimer Disease Network (DIAN)
- Indiana Alzheimer Disease Center (iADC)

GENETICISTS



Dr. Gail Vance



Dr. Wilfredo Torres - Martinez

GENETIC COUNSELORS



Tina Bouril, MS, LCGC



Cindy Hunter, MS, LCGC



Jennifer Ivanovich, MS, LCGC

CANCER GENETICS

Outpatient and inpatient cancer genetic services including genetics evaluation, risk assessment, genetic counseling, genetic testing, and medical management are offered at the Riley Hospital for Children, Simon Cancer Center at University Hospital, Schwarz Cancer Center at IU North Hospital, and IU West Hospital. In-person and telemedicine evaluations are available.

Inpatient consultations are performed at University Hospital, Methodist Hospital, and Riley Hospital for Children.

Services are provided to children and adults with cancer and/or who have a family history of cancer, polyposis, hyperparathyroidism, or pancreatitis.

Adult Cancer Genetics Clinics

Drs. Gail Vance and Wilfredo Torres-Martinez with genetic counselors Jennifer Ivanovich, Cindy Hunter, Courtney Schroeder, Alexis McEntire, Tina Bouril, and Leigh Anne Stout

The **Indiana Familial Cancer Clinic (IFCC)** held at the Simon Cancer Center – University Hospital, Schwarz Cancer Center – IU North Hospital, and IU West Hospital takes a collaborative approach to care with our geneticist and genetic counselors providing diagnoses, management, family screening recommendations, genetic testing, and pre/post-test genetic counseling.

Common reasons for referral to the IFCC include:

- Cancer diagnosed at young age (e.g. breast or colon cancer before age 50),
- Multiple close family members with the same type of cancer or related cancer,
- Two or more primary cancer diagnoses,
- Rare cancers or unusual tumors, or
- Known inherited cancer syndrome.

Pediatric Cancer Genetics Clinic

Dr. Wilfredo Torres-Martinez and genetic counselor Jennifer Ivanovich

The Pediatric Cancer Genetics Clinic, held at the Simon Cancer Center, provides comprehensive genetic evaluations to children with cancer and/or children who are at an increased risk to develop cancer, polyposis, or pancreatitis. The geneticist and genetic counselor collaborate to provide diagnoses, management, family screening recommendations, genetic testing, and pre/post-test genetic counseling.

In addition, our geneticist and genetic counselor are part of a multidisciplinary care team providing pediatric precision cancer genomics services to children with advanced cancer to identify targeted therapies based on tumor genomic analysis. These analyses are reviewed and testing coordinated in conjunction with appropriate genetic counseling for those with suspected or known germline mutations consistent with hereditary cancer.



Alexis McEntire, MS, LCGC



Courtney Schroeder, MS, LCGC



Leigh Anne Stout, MS, LCGC

Multidisciplinary Cancer Genetics Specialty Clinics

In addition, our geneticists and genetic counselors participate on a number of multidisciplinary teams.

- **Adult Cancer Precision Genomics Program** - is directed by Drs. Schneider and Radovich (Medical Oncology) with the goal to identify targeted therapies based on tumor genomic analysis. Leigh Anne Stout and Cindy Hunter, the genetic counselors in this clinic, review tumor and germline results to provide genetic counseling and genetic testing coordination for individuals suspected with a germline mutation. Leigh Anne also provides care to satellite centers in the state.
- **Pediatric Cancer Precision Genomics Program** – is directed by Drs. Ferguson and Marshall (Peds Hem/Onc). Children with advanced cancer are seen for assessment with the primary goal to identify targeted therapies based on tumor genomic analysis. Jennifer Ivanovich, the genetic counselor on the team, reviews tumor and germline results. She provides genetic counseling and coordinates genetic testing for children with a suspected germline mutation.
- **Hereditary Renal and Prostate Cancer Clinic** – this monthly clinic is directed by Drs. Vance and Boris (Urology). Courtney Schroeder, MS LCGC and Dr. Gail Vance provide genetics assessment, genetic counseling, and coordinate genetic testing for the patients.
- **Pediatric Cancer Predisposition Clinic** – this is a joint clinic with Dr. Lion and Jayne Vanbergen NP in Pediatric Oncology with Dr. Torres-Martinez and Jennifer Ivanovich MS LCGC. This clinic meets monthly. Children with an inherited cancer predisposition syndrome undergo surveillance and participate in clinical trials. Ongoing genetics education and family cascade analysis is also performed.
- **Hereditary Colorectal Clinic** -(Planned to begin January 2021) – Drs. Vance and Jennifer Maratt (Gastroenterology) will direct this clinic. Alexis McEntire MS LCGC will provide genetic counseling services and Michelle Juan will coordinate this clinic for individuals with an inherited colorectal cancer syndrome.

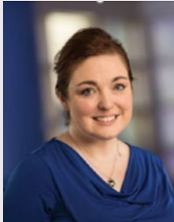
GENETICISTS



Dr. Erin Conboy



Dr. Clair Francomano



Dr. Elle Geddes



Dr. Brett Graham



Dr. Melissa Lah



Dr. Molly McPheron

November 2020

MEDICAL GENETICS

Drs. Erin Conboy, Elle Geddes, Brett Graham, Melissa Lah, Molly McPheron, Wilfredo Torres-Martinez, David Weaver, Jennifer Weida and Theodore Wilson

Genetic counselors Katie Anderson, Becky Baud, Katelyn Burns, Kahlen Darr, Paula Delk, Sharon Luu, Trisha Neidlinger, Kayla Treat, and Kerry White

The Medical Genetics Clinics at Riley Hospital for Children's Pediatric Primary Care offices sees both pediatric and adult patients who are referred for evaluation of possible underlying genetic condition. These clinics are staffed by a physician geneticist and genetic counselor who provide a comprehensive evaluation which often includes obtaining a detailed medical and family history, performing a comprehensive dysmorphological physical exam, risk assessment, facilitating genetic testing, results interpretation and communication, facilitating cascade testing for at-risk family members and long-term management coordination.

Common referrals to the Medical Genetics Clinics include:

- Developmental delay/intellectual disability
- Multiple congenital anomalies
- Chromosome abnormalities
- Connective tissue disorders
- Fragile X syndrome
- Short stature/failure to thrive
- Dysmorphic features
- Autism spectrum disorder
- Hearing loss
- Family history of a genetic condition

Specialty Clinics

The department also participates in specialty clinics, many of which are multidisciplinary in their approach to care.

The Center for Ehlers-Danlos Syndromes

Under the direction of Dr. Clair Francomano this center is committed to advancing research, education, and patient care for those living with the Ehlers-Danlos syndrome (EDS), hypermobility spectrum disorders (HSD), and associated symptoms and conditions in both the pediatric and adult populations. In addition to Dr.



Dr. Wilfredo Torres-Martinez



Dr. David Weaver



Dr. Jennifer Weida

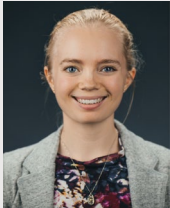


Dr. Theodore Wilson

Genetic Counselors



Katie Anderson, MS, LCGC



Rebecca Baud, MS, LCGC

Francomano, a genetic counselor, nurse practitioner, nurse case manager and medical assistant work in conjunction to provide a comprehensive evaluation, risk assessment, test coordination, pre and post-test counseling, long term management and care to these patients. Dr. Francomano also leads research efforts in this area, affording patients the opportunity to participate in clinical research opportunities.

The Undiagnosed Rare Disease Clinic

Dr. Erin Conboy and genetic counselor Kayla Treat in conjunction with researchers affiliated with this clinic help patients who may have genetically based rare diseases when other doctors have not been able to determine a diagnosis. Finding a genetic etiology for these conditions may require new genes to be discovered and a bench to bedside approach as collaborative care combines the strengths of the IU Health clinical care specialists and IU School of Medicine researchers. This clinic focuses mainly on pediatrics but may see patients of any age.

The Deaf and Hard of Hearing Clinic

Dr. Theodore Wilson and genetic counselor Kayla Treat are part of a multidisciplinary approach to the care of those who are deaf and hard of hearing. In addition to meeting with a geneticist and genetic counselor those referred to this clinic meet with specialists from ENT, audiology, speech therapy, developmental pediatrics, psychology, an education mentor from the Indiana State Department of Health, and a Guide by your Side parent support representative.

The Ocular Genetics Clinic

Dr. Erin Conboy and genetic counselor Katie Anderson provide a comprehensive evaluation for patients with a suspected or confirmed genetic ocular condition. Common conditions evaluated in this clinic for an underlying genetic etiology include: retinal dystrophies, nystagmus, structural eye differences, ocular albinism, lens dislocation, optic neuropathies, congenital or early onset cataracts and glaucoma, unexplained low vision, LHON, and family history of ocular conditions. This clinic is held monthly at Riley Children's Hospital and includes ophthalmologist Dr. Kathryn Haider.



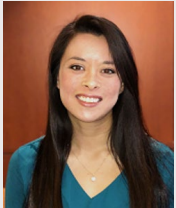
Kate Burns, MS, LCGC



Kahlen Darr, MS



Paula Delk, MS, LCGC



Sharon Luu, MS, LCGC



Trisha Neidlinger, MS, LCGC



Kayla Treat, MS, LCGC

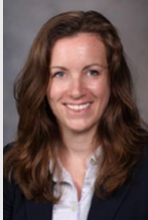
The Bone Dysplasia Clinic

Drs. David Weaver and Wilfredo Torres-Martinez along with two genetic counselors staff this monthly clinic which accepts both pediatric and adult patients referred for evaluation of possible underlying skeletal dysplasia. Common referrals include short stature, osteopenia and/or multiple fractures, and skeletal abnormalities. Some common conditions evaluated include osteogenesis imperfecta, multiple epiphyseal dysplasias, metaphyseal dysplasias, achondroplasia and hypochondroplasia.

The Cystic Fibrosis Clinic

Genetic Counselor Trisha Neidlinger sees patients as part of a multidisciplinary care team at the Cystic Fibrosis Center (CFC) at Riley Hospital for Children. In this clinic Trisha provides counseling for families who have a child affected by cystic fibrosis (CF) to help them understand the genetics of this condition, discuss risks for themselves and family members to have future children with CF, and to facilitate genetic testing. Outside of the CFC Trisha sees patients twice a month through either in-person or telegenetic counseling visits to facilitate carrier screening for patients who have an increased risk to have a child with cystic fibrosis.

GENETICISTS



Dr. Erin Conboy



Dr. Brett Graham



Dr. Bryan Hainline



Dr. Melissa Lah



Dr. Molly McPheron

METABOLIC GENETICS

Drs. Erin Conboy, Brett Graham, Brian Hainline, Melissa Lah, and Molly McPheron

Genetic counselors Sharon Luu and Katie Sapp

Registered Dietitians Danielle Drake-Ruebel and Abby Hall

Newborn screening nurse case manager Courtney Slack

Social worker Courtney Treharn

Pediatrics

The pediatric metabolism clinic at Riley Hospital for Children's Pediatric Primary Care Clinic provides comprehensive care and evaluations by a physician geneticist, genetic counselor, registered dietician and nurse case manager. These specialists work together to provide diagnoses, management, and outside resources for patients and families with metabolic conditions. Patients commonly seen by this team may include those with:

- Newborn screening conditions (e.g. PKU, galactosemia)
- Lysosomal storage disorders
- Urea cycle disorders
- Acquired metabolic concerns

Newborn screening

The metabolic genetics team has collaborated with the Indiana Department of Health Newborn Screening Program for over forty years in the confirmation, counseling and management of newborns detected by screening to have a detectable inborn error of metabolism (now includes approximately 45 disorders). Since 2018, the metabolic genetics team has broadened that collaboration to include coordination of multidisciplinary care for newly added NBS conditions (spinal muscle atrophy [SMA], severe combined immunodeficiency [SCID], Hurler syndrome/MPS1, Pompe disease, and Krabbe disease).

Genetic Counselors



Sharon Luu, MS, LCGC



Katie Sapp, MS, LCGC

Adult

The adult metabolism clinic at Riley Hospital for Children's Pediatric Primary Care Clinic mirrors the comprehensive approach to the care of our patients through a collaborative assessment by a physician geneticist, genetic counselor, registered dietician and nurse case manager for both in-patient and out-patient care. These specialists work together to provide care to those 18 and over affected by the conditions commonly diagnosed and followed through our pediatric service. In addition, patients with acquired metabolic concerns (e.g. hyperammonemia due to liver disease, gastroparesis) may also be seen in this clinic.

Cutting Edge Treatments

The department is one of the largest in the United States to offer the newly FDA approved therapy, Palynziq (pegvaliase-pqpz), for the treatment of adults with phenylketonuria (PKU). Drs. Melissa Lah and Molly McPheron see patients weekly in their clinics to treat and monitor adults receiving this novel therapy.

Clinical Trials

Dr. Melissa Lah is involved in a growing number of clinical trial efforts, which have included:

- BioMarin led trials related to PKU
- Soleno Therapeutics led trial for Prader Willi syndrome
- Orphan Technologies led trial for cystathionine beta-synthase deficient homocystinuria

IU GENETIC TESTING LABORATORIES

Overview

The Genetic Testing Laboratories at IU School of Medicine (IUGTL), including the IU Cytogenetic Laboratory, IU Molecular and Pharmacogenomic Laboratory and the Biochemical Genetic Laboratory, serve as a collaborative national clinical reference laboratory unit. The IUGTL is a worldwide leader in high standards of patient care supported by innovative laboratory research and development, and it offers an extensive menu of highly complex and unique medical tests in the specialties of cytogenetics and cytogenomics, biochemical genetics (metabolic disease), pharmacogenomics, and molecular genetics. In addition to our team, IUGTL is complemented with the expertise of experienced staff, medical geneticists, faculty, genetic counselors, and researchers at IU School of Medicine. All laboratories are College of American Pathologists (CAP)-accredited and CLIA-certified. The IUGTL website is:

<http://geneticslab.medicine.iu.edu/>

Biochemical Genetics Laboratory

Dr. Miller leads the Biochemical Genetics Laboratory, which was launched on September 17, 2018. The Biochemical Genetics Laboratory works closely with Metabolic Genetics to ensure optimal and time-sensitive patient care. Tests include:

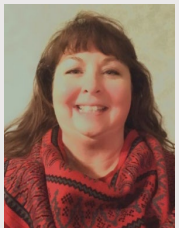
- Urine organic acid analysis
- Plasma acylcarnitine analysis
- Plasma free and total carnitine analysis
- Plasma amino acid analysis
- Urine amino acid analysis
- CSF Amino Acid Analysis
- Serum Methylmalonic Acid Analysis
- Phenylalanine and Tyrosine Blood Spot Analysis

Cytogenetics Laboratory

Drs. Vance, Hodge and Breman lead the IU Clinical Cytogenetics Laboratory, which offers comprehensive cytogenetic and cytogenomic diagnostic testing across the lifespan, with evaluation of both constitutional and neoplastic disorders by karyotype, fluorescence *in situ* hybridization (FISH) and/or chromosomal microarray (CMA) analysis. For constitutional testing, CMA is available to evaluate prenatal (amniotic fluid, CVS), postnatal (blood, buccal swab) and products of



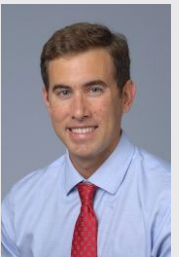
Dr. Gail H. Vance, M.D.
Director, Division of Diagnostic Genomics



Lisa Lowe Wright, M.S., CG(ASCP)^{CM}
QLC
Laboratory Manager

Sarah Nichols
Business Manager

Kyle Adkins
LIMS Specialist



Marcus J. Miller, Ph.D.
Director, Biochemical Genetics Lab



Amy M. Breman, Ph.D.
Co-Director, Cytogenetics Lab



Jennelle C. Hodge, Ph.D.
Co-Director, Cytogenetics Lab



Victoria M. Pratt, Ph.D.
Director, Molecular Genetics Lab
Director, Pharmacogenomics Lab

conception specimens. The laboratory's excellence and experience in cancer analysis has resulted in our recognition for over 40 years as an Institutional Laboratory for cooperative study groups including the Eastern Collaborative Oncology Group (ECOG) and the Children's Oncology Group (COG). The Cytogenetics Laboratory is also a regional provider for the state of Indiana, servicing all of the IU Health System in addition to facilities in South Bend, Bloomington, Fort Wayne, Columbus, and Evansville.

Molecular Genetics Laboratory

Drs. Pratt (Director) and Hodge (Associate Director) lead the Molecular Genetics Laboratory. The testing menu includes both routine inherited and oncology disorders. Some examples include targeted known mutation analysis, for a family member for any sequence variant identified by Sanger sequencing or Next Generation Sequencing (NGS) either at IU or through another laboratory. In addition, known mutation testing is available for individuals who wish to have clinical laboratory confirmation of variants identified through research laboratories such as the Longitudinal Early-onset Alzheimer Disease Study (LEADS). This laboratory works closely with the URDC clinic and develops custom assays to resolve variants of unknown significance.

Pharmacogenomics Laboratory

Dr. Pratt leads the Pharmacogenomics Laboratory. This laboratory provides clinical testing to help predict how people respond differently to different medications. Pharmacogenomics provides additional knowledge that helps physicians better prescribe a drug regimen with a greater probability of a positive outcome. The Pharmacogenomics Laboratory works closely with Clinical Pharmacology and other clinicians and researchers at IU as well as across the country.

Clinical Trials

Dr. Pratt is involved in a growing number of clinical trials related to pharmacogenomics:

- Pain management
- Depression
- Asthma medications
- Methadone
- Extreme medication responders

SARS CoV-2 Laboratory

The COVID laboratory performs RT-PCR testing of saliva from asymptomatic students, faculty and staff of Indiana University. The multiplex method utilizes heat inactivation and testing of SARS CoV targets N, S, and Orf1ab genes to determine infection status. Drs. Vance and Miller direct the laboratory with support from Dr. Francesco Vetrini.