

Medical and Human Genetics in OKLAHOMA

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Oklahoma State Department of Health ; Oklahoma City, OK*



State Profile

- **Population: 3,642,361** Oklahoma City (537,734), Tulsa (382,872) & Norman (102,827)
- **18th largest state** (69,919 square miles); 31st in population
- **Home of Five Civilized Tribes** (Choctaw, Chickasaw, Cherokee, Creek, and Seminole) and other tribes
- **“Oklahoma”** comes from two Choctaw Indian words meaning “red man”.

Personnel

State Health Department

Sharon Vaz Director of Genetics and State Genetics Coordinator
 Vacant State Genetics Education Coordinator
 Gary McKee Director, Public Health Laboratory
 Kay Pearson Coordinator, Birth Defects Registry
 Lisa Caton NBS Quality Assurance and Education Coordinator
 Jennifer Allen Newborn Screening Nurse
 Terry Geisler Newborn Screening Consultant
 Paula Vann Newborn Screening Special Populations
 Patricia Burk Coordinator Hearing Screening
 Brandon Vincent Hearing Follow-up Coordinator

Clinical Genetics

David Dvornik Clinical Endocrinology Baptist Hospital, OKC
 John J. Mulvihill Clinical University of Oklahoma, OKC
 Susan Palmer Clinical/Biochemical University of Oklahoma, OKC
 J. Rodman Seely Clinical Endocrinology University of Oklahoma, Tulsa
 Klaus Wieringa Clinical University of Oklahoma, OKC
 Andrew Wagner Genetics/OB-GYN University of Oklahoma, OKC
 Michael Koyser Clinical/Biochemical St Francis Hospital, Tulsa
 James Colwell Metabolic Specialist Hillcrest Hospital, Tulsa

Maternal Fetal Medicine

James Beeson University of Oklahoma, Tulsa
 Mark Harman University of Oklahoma, Tulsa
 Nina Doyle University of Oklahoma, Tulsa
 Eric Knutson University of Oklahoma, OKC
 Andrew El-Alamain University of Oklahoma, OKC
 Jean Goodman University of Oklahoma, OKC
 Alvie Richardson University of Oklahoma, OKC
 Marvin Richardson Perinatal Center of Oklahoma, OKC
 John Stanley Perinatal Center of Oklahoma, OKC
 Charles Mible OHL Associates, Tulsa
 Jeffrey Stewart Great Plains Obstetrics, Lawton
 Carol Lemmon Private Practice
 Christine Blake Private Practice
 Fred Fumia Private Practice

Genetic Laboratories

Nancy Carpenter Cytogenetics St. Francis Hospital, Tulsa
 S. Terence Dunn Molecular Pathology University of Oklahoma, OKC
 Shibo Li Cytogenetics/Mol.Gen. University of Oklahoma, OKC
 Fred Schaefer Molecular Genetics St. Francis Hospital, Tulsa
 Michael Kayser Biochemical Genetics St Francis Hospital, Tulsa

Genetic Counselors and Nurses in Genetics

Glenda Bell Oncology Baptist Hospital, OKC
 Sharon Nail Oncology Baptist Hospital, OKC
 Melissa Craft Oncology Breast Imaging of Oklahoma
 Susan Haswell Pediatric/Adult University of Oklahoma, OKC
 Julie Keeth Pediatric/Adult University of Oklahoma, OKC
 Mary Henrichs Prenatal Perinatal Center of Oklahoma, OKC
 Lori Williamson Pediatric/Adult Perinatal Center of Oklahoma, OKC
 Patrick Wilson Prenatal University of Oklahoma, OKC
 Erica Cole Pediatric/Adult University of Oklahoma, OKC
 Julie Keeth Pediatric/Adult University of Oklahoma, OKC
 Sharon Vaz Public Health Oklahoma State Department of Health

NHL Funded Genetic Researchers (and member of GSA or ASHG)

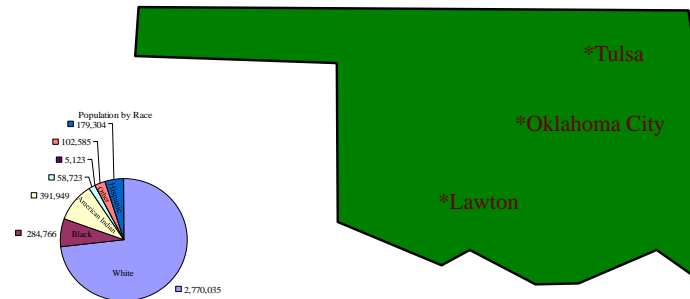
John Harley Lupus erythematosus OMBF, OKC
 John Mulvihill Neurofibromatosis University of Oklahoma, OKC
 Morris Foster Family history prostate cancer University of Oklahoma, Norman
 Morris Foster Family history prostate cancer in African Americans University of Oklahoma, Norman
 Sanjay Bidichandani Friedrich ataxia and triple repeats University of Oklahoma, OKC

Training Programs

MS in Genetic Counseling –2003
 Mid-America Genetic Education Consortium (MAGEC) --2004
 University of Oklahoma (Biochem/Mol Genetics; Zoology; Botany/Microbiology)

RRC Medical Genetics Residency
 Molecular Pathology Training Program

Genetic Clinic Sites



Newborn Screening

ACTUAL	CONDITIONS	NEW CASES / 2008
1963	Phenylketonuria	1
1979	Congenital hypothyroidism	19
1991	Sickle cell disease	9
1991	Galactosemia	0
2005	Cystic fibrosis	
2005	Congenital adrenal hyperplasia	2
2006	Medium chain acyl coenzyme A dehydrogenase deficiency (MCAD)	4
2008	Amino Acids, Organic Acids, Fatty Acid Oxidation Defects	6
Pending	Biotinidase	

Advisory Council

Oklahoma Genetics Advisory Committee (OGAC) with committees:

Birth Defects Registry, Prenatal Screening and Diagnosis
 Newborn Screening Programs and Pediatrics
 Public Health Genetics Policy
 Family Advisory
 Adult Genetics
 Evaluation
 Education
 Student / LEND

Special Features

- Turner syndrome described at OU in 1938
- OU sequencing capacity: chromosomes 21, 22 – Bruce Roe
- Various bacteria—Joseph Ferretti, David Dyer
- Oklahoma Medical Research Foundation
- Children’s Medical Research Institute
- General Clinical Research Center
- American Indian Nations as clinical and research partners
- Genetic Counseling Licensure – November 2006

Facilities

Oklahoma City

State Department of Health
 University of Oklahoma Health Sciences Center
 •Children’s Hospital Pediatric Specialty Clinic
 •Biochemistry and Molecular Genetics, Pathology
 •OU Physicians’ Building, Breast Health Institute
 •OU Physician’s Building, Maternal Fetal Medicine
 •Oklahoma Medical Research Foundation
 Perinatal Center of Oklahoma
 Baptist Hospital
 Southwest Integris Medical Center

Edmond

Breast Imaging of Oklahoma
 University of Central Oklahoma - Forensics

Tulsa

St. Francis Hospital and University of Oklahoma Health Sciences Center—Tulsa Campus
 Oklahoma State University Houston Parke Pediatrics
 Oklahoma State University - Forensics

Norman

University of Oklahoma (Anthropology, Biochemistry, Zoology, Botany)

References

- Oklahoma State Genetics Plan (www.health.ok.gov/program/gp)
- *J Okla State Med Assoc. October 2003, Genetics Issue, 96(10).*
- The DNA sequence of human chromosome 22. *Nature.* 1999 Dec 2;402(6761):489-95.
- Community involvement in the ethical review of genetic research: lessons from American Indian and Alaska Native populations. *Environ Health Perspect.* 2002 Apr;110 Suppl 2:145-8.
- A syndrome of infantilism, congenital webbed neck and cubitus valgus. *Endocrinology* 1938 23:566–574