

Medical and Human Genetics in OKLAHOMA

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State Profile

- **Population:** 3,792,485 Oklahoma City (600,000), Tulsa (400,000), Norman (88,000), & Lawton (86,000)
- **18th largest state** (69,919 square miles); 28th 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

Pam King Director of Genetics and State Genetics Coordinator
 John Mathewson Director, Public Health Laboratory
 Kay Pearson Coordinator, Birth Defects Registry
 Theresa Steckel Newborn Screening Quality Assurance and Education Coordinator
 Paula Vann Newborn Screening Nurse
 Terry Geisler Newborn Screening Consultant
 Jim Schmeckle Coordinator, Hearing Screening

Clinical Geneticists

David Donnell Clinical Endocrinology Baptist Hospital, OKC
 John J. Mulvihill Clinical University of Oklahoma, OKC
 Susan Palmer Clinical/Biochemical University of Oklahoma, OKC
 J. Rudman Sorely Clinical Endocrinology University of Oklahoma, OKC
 Valentina Dalil Clinical University of Oklahoma, OKC
 Andrew Wagner Genetics/OB-GYN University of Oklahoma, OKC

Maternal Fetal Medicine

James Besson University of Oklahoma, Tulsa
 Christine Blake Private Practice
 Fred Fumia Private Practice
 Mark Harman University of Oklahoma, Tulsa
 Erik Kramon University of Oklahoma, OKC
 Andrew El-Alamain University of Oklahoma, OKC
 John Stanley Perinatal Center of Oklahoma, OKC
 Charles Mirzibille Perinatal Center of Oklahoma, OKC
 Jeffrey Stewart OBL Associates, Tulsa

Genetic Laboratorians

Nancy Clapmeyer Cytogenetics St. Francis Hospital, Tulsa
 S. Terrence Dunn Molecular Pathology University of Oklahoma, OKC
 Shibo Li Cytogenetics/Mol Gen. University of Oklahoma, OKC
 Fred Schaefer Molecular Genetics St. Francis Hospital, Tulsa

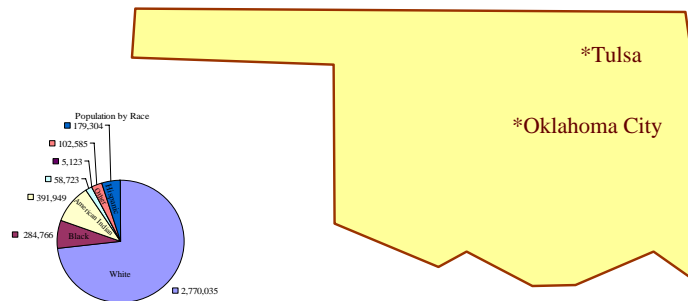
Genetic Counselors and Nurses in Genetics

Rebekah Aldrich Cytogenetics University of Oklahoma, OKC
 Melissa Craft Oncology University of Oklahoma, OKC
 Susan Hassel Pediatric/Adult University of Oklahoma, OKC
 Jessica Mester Pediatric/Adult University of Oklahoma, OKC
 Mary Heinrichs Pediatric/Adult University of Oklahoma, OKC
 Lori Williamson Pediatric/Adult University of Oklahoma, OKC
 Patrick Wilson Prenatal University of Oklahoma, OKC
 Sharon Vaz Prenatal Perinatal Center of Oklahoma, OKC

NIH Funded Genetics Researchers (and member of GSA or ASHG)

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

Genetics Clinic Sites



Newborn Screening

ACTUAL	CONDITIONS	NEW CASES / 2005
1963	Phenylketonuria	1
1979	Congenital hypothyroidism	21
1991	Sickle cell disease	16
1991	Galactosemia	2
2005	Cystic fibrosis	11
2005	Congenital adrenal hyperplasia	3
2006	Medium chain acyl coenzyme A dehydrogenase deficiency (MCAD)	2
PLANNED		
2007	Biotinidase	
2007	Other MS/MS detectable disorders	

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

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

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 at Mercy Hospital
- Baptist Hospital
- Southwest Intergis Medical Center

Edmond

- Breast Imaging of Oklahoma

Tulsa

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

Norman

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

References

- Oklahoma State Genetics Plan (www.health.state.ok.us/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

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 (pending)

Molecular Pathology Training Program (pending)